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ABSTRACT

The proceedings of the conference/short course on the role of the family as supportive personnel in speech and hearing remediation focus upon the family and its relationship and interaction with the speech, language, or hearing handicapped individual. The purpose of the course was to emphasize the importance of utilizing the family as a manpower resource in the fields of speech pathology and audiology. The five major papers concern voice disorders and the family environment, the family of the laryngectomee, family influences on stuttering and stuttering therapy, family role in the management of the deaf child, and the role of the family in aphasia. Substantial discussions follow each presentation. (KW)

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THE FAMILY as SUPPORTIVE PERSONNEL in SPEECH and HEARING REMEDIATION

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Proceedings of the Post-Graduate Short Course

THE FAMILY AS SUPPORTIVE PERSONNEL IN SPEECH AND HEARING REMEDIATION

at the University of California, Santa Barbara
March 31, April 1 and 2, 1970

THEODORE D. HANLEY, PH. D., *Program Chairman*
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Sponsored by
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Santa Barbara, 1971

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You have heard me ever since I was born
My birth cry and my babbling
My first word and my first sentence
And that you have listened determined
that I have spoken
As my listener you are the soil for the
growth of my words
I would not have them fall upon the barren
rocks of your unconcern
Or into the noisy circuits of your distraction
It does not matter only that I speak
It matters too that you listen

Lee Edward Travis
Santa Barbara
April 1, 1970

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Sanford E. Gerber
Editor

Santa Barbara, California
February 1971

PREFACE

Manpower shortages in the human services (health, education, and welfare) are recognized and reported to the extent that they are matters of common knowledge and concern in many disciplines. The communicative disorders – speech pathologies and auditory impairments – have come into focus in national, regional, and local conferences and have been the subject of articles and addresses by leaders in the profession.

Two trends are to be noted in efforts to alleviate shortages in personnel trained in speech pathology/audiology: federal support of graduate education in this field, and recognition of sub-professional activities for which communication aides can be trained. For the present, at least, the federal support appears to have plateaued, and even regressed somewhat as priorities have shifted at the national level. The communication aide concept is emerging, not everywhere accepted, and – like graduate education – is a funding problem.

One manpower resource long acknowledged but minimally exploited is the family, spouses, parents, children, and siblings of the person who has a communicative disorder. In recognition of the potential benefit to be realized by the inclusion of the family in the rehabilitation process, the faculty of the Speech and Hearing Center at the University of California, Santa Barbara, sought support for a national conference/short course devoted to the subject. The support was forthcoming in the form of a grant from the Training Division, Rehabilitation Services Administration, Social and Rehabilitative Services, Department of Health, Education, and Welfare.

With this encouragement, the resident faculty designed a three-day program, issued invitations to a distinguished short course faculty of lecturers and discussants and to a select student body comprised of directors of RSA-supported speech and hearing training programs or their designees as well as a suggested list of Southern California Vocational Rehabilitation Counsellors.

The conference/short course was held on the UCSB campus March 31, April 1 and 2, 1970. The document that follows constitutes the Proceedings of this event. The resident faculty wishes to express its appreciation to RSA for its support, to the invited faculty for their major contributions to the success of this undertaking, and to the select student body for their interest and active participation.

Theodore D. Hanley
Conference Chairman

Santa Barbara, California
November 1, 1970

Introduction

Jamil I. Toubbeh, Ph.D.
Department of Health, Education and Welfare
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Washington, D.C.

The conclusions embodied in these proceedings should challenge rehabilitation personnel involved in speech, language, and hearing remediation to develop and evaluate innovative methods by which *the family* can become actively involved in the therapeutic process.

No professional in the field of speech pathology and audiology is likely to exclude the family from the therapeutic process: it would be incongruous with the nature of human communication and its disorders, and the rehabilitation process. But such inclusion need not always imply *active* involvement. The degree of involvement depends upon knowledge of the communicative process and its disorders, and the acquisition of certain skills for performance of specific, assigned tasks.

The importance of utilizing the family as a manpower resource can best be appreciated in the light of the national manpower needs in this field. At the present time, active manpower in speech pathology and audiology totals fewer than 14,000 professionals.

According to the most recent study of the prevalence of communicative disorders in the United States, conducted by the National Institute of Neurological Diseases and Stroke (1969), more than 20,000,000 persons have communicative handicaps worthy of concern! Clearly, the service needs of this large population can not be met by highly trained professionals alone. The implications of the NINDS study are quite obvious: unless new and innovative methods of delivery of services to these handicapped individuals are introduced, many potential rehabilitants will end up on welfare rolls; many more will pay the price in human suffering which communication disorders inflict.

The concept of training and using supportive personnel in speech, language and hearing remediation is not new. The profession of speech pathology and audiology has been active in promoting training and utilization of these types of personnel for several years. In cooperation with the Rehabilitation Services Administration, the American Speech and Hearing Association has held numerous national conferences on this important topic. Guidelines for training and utilization of support personnel have been developed. Further, several institutions in various States have successfully trained and placed supportive personnel in public schools, clinics, hospitals, and other rehabilitation settings.

The training and utilization of the family as supportive personnel presents new challenges to professionals in the field of Speech Pathology and Audiology. From the viewpoint of manpower resources, voluntary family contributions to rehabilitation may be highly desirable. There are drawbacks, also. The personal involvement of the family in the communicative disorder may sometimes hinder the therapeutic process and render professional guidance and therapy ineffective. Exceptions to the desirability of family involvement should not preclude greatly expanded efforts to devise programs for the greater utilization of this resource. Experimentation with the family in a supportive role could lead to identification of tasks that can be performed without adverse effects on the handicapped person.

The focal point of the discussions at the Santa Barbara conference was the family and its relationship and interaction with the handicapped individual. The primary objective of this document is to stimulate those professionals concerned with communication disorders to act upon the urgent habilitation and rehabilitation needs of the communicatively handicapped person. The Proceedings, therefore, do not constitute a document which spells out step-by-step procedures in dealing with the family as supportive personnel. To do so would be a questionable undertaking when one considers the spectrum of communication disorders and the complexity of the therapeutic processes. Nevertheless, the reader, professional or lay, can expect guidance from the Proceedings, which may be helpful in structuring a program for the training and utilization of the family as supportive personnel.

The organization of this publication follows the format of the conference at Santa Barbara. The reader is

introduced to some of the most prevalent communication disorders, discussed by authorities in the areas of voice disorders, laryngectomy, stuttering, deafness, and aphasia. Each presentation is followed by a panel discussion which includes audience participation. By and large, the content of the Proceedings reflects research findings and empirical observations not heretofore published. Speech pathologists, rehabilitation audiologists, rehabilitation counselors, psychologists, physicians, and other allied health personnel will find the information useful.

Those professionals who elect to transcend "laboratory precision" to look at the contemporary family through a telescope, are invited to read Lee Edward Travis' MY LISTENER: it should be required reading!

There is no doubt that the family can serve the communicatively handicapped in another important role: it can act as a catalyst in alerting State and Federal legislators to the needs of millions of citizens handicapped by speech, language, and hearing disorders.

Voice Disorders and the Family Environment

Paul Moore, Ph.D., *University of Florida*

My assignment in this short course is to explore some of the ways in which voice disorders are related to environmental factors, particularly those enclosed within the concept "family." As I see our environment, this ocean in which we live, it is composed of the seeable, hearable, feelable, smellable, and tasteable creatures and things that we call our physical world. This ocean also incorporates the circulating currents of attitudes, beliefs and customs that compose our social world. We recognize, in addition, an inner world, a personal world, that by definition is not part of the environment, yet is so intimately linked to out physical and social worlds that there is only a thin permeable film between them.

I picture the family as a segment of the environment with all of the usual physical and social elements, but distinguished by specific biological and social relationships. Family also tends to imply a geographic location, or focus of activity, yet it is only loosely confined to the concept "home." Ordinarily, location becomes decreasingly specific or becomes a multiple concept with increasing age. Family can be interpreted as that segment of the environment in which the individual lives. It includes the places where he works, plays, eats, and sleeps; and the people with whom he works, plays, eats, and sleeps.

It is apparent from the title of this short course, and the material describing it, that the underlying philosophy has at least four facets. First, speech is learned; second, some speech disorders may be caused by factors in the family environment; third, remediation may require modification of the environment to meet the individual's needs; and fourth, change of the individual's vocal behavior may be necessary to meet the environmental demands. I subscribe to this philosophy and wish to discuss the environment, particularly the family environment, as it relates to the recognition of voice disorders, to the causes for some of these disorders, and to their remediation.

What are voice disorders, and how are they determined? The group assembled here recognizes that the term *voice disorders* encompasses the basic sounds of which speech is composed, in contrast with the linguistically significant sounds, the phonetic elements of language. Vocal deviations may be in pitch that is too high or too low, loudness that is too great or too weak, or vocal quality that lacks excellence by being hoarse (rough) or harsh or breathy or spasmodic or hypernasal or hyponasal or mixtures of these and other factors.

Each person in the population has acquired a working definition of voice disorders, and he has also developed a concept of normal voice on which he judges the abnormal. Yet it is obvious that there is no single vocal sound that can be called "normal voice;" instead, experience has taught us to recognize a normal for childrens' voices, girls' voices, boys' voices, womens' voices, mens' voices, voices of the aged, and so on. The location of the threshold that separates the abnormal from the normal is judged by each listener on the basis of his cultural standards, education, social concepts, vocal training, and similar environmental influences: but wherever the separation between adequate and inadequate is placed, it is obvious that each individual has acquired concepts of normalcy and defectiveness. This observation should alert all of us dealing with communication problems to the fact that voice disorders are related both to our cultures and our environments. A voice judged to be defective by the clinician may be unnoticed by the parent, employer, or teacher. It follows that the social and cultural factors provide the basis for the traditional definition of voice problems as those deviations in pitch, loudness, and quality that are judged to be

*Modified from material presented by the author in *Handbook of Speech Pathology and Audiology*, Lee E. Travis, Editor, Revised edition. New York: Appleton - Century - Crofts, Inc., 1970 (In Press), and in *Organic Voice Disorders*, Englewood Cliffs, N.J., Prentice-Hall, Inc. 1971 (in press).

atypical of the vocal characteristics of most persons having the same age, sex, and cultural background.

Abnormalities of pitch establish significant relationships between the individual and his environment. The man with a high-pitched voice who is addressed as "Mam" or "Miss" on the telephone is seriously handicapped both economically and socially. In our culture, the pitch of the adult male voice is related to concepts of masculinity; high pitch is often interpreted either as a sign of delayed sexual development or as an evidence of effemininacy. A person with such a voice is usually rejected by both men and women, and there are few occupations in which he can obtain employment.

An equally distressing problem exists when a woman's voice has a masculine pitch. Various interpretations of masculinity-femininity confusions are made by laymen, and there are certain jobs that are not available to women with masculine-type voices. However, penalties for low-pitched voices in women do not appear to be as severe as those accompanying the opposite situation in men. Part of this difference may reflect the popularity of certain prominent actresses who have developed low-pitched voices that tend to be admired and imitated. Another probable reason for the social acceptance of low-pitched female voices is that laryngitis and other laryngeal diseases almost always lower the pitch; consequently, the change can be associated with an "honorable" disease instead of with a "suspect" physical condition or personality.

The medical, social, and personality implication of other pitch disorders such as vocal monotony, tremulousness, and atypical melody patterns, range from neurological disorders to laryngeal disease, social inadequacy, and fear. The layman rarely notices monotony, but tremulousness, except as it exists in older persons and those experiencing stress, and atypical melody patterns may cause extensive economic and social penalties.

Voices that are too loud or not loud enough are faulty because they do not satisfy the requirements of the environmental situation. These deviations are rarely classified as serious defects by the general public, but the speech pathologist must be alert to them and their implications of potential social or personal problems. Individuals who speak too loudly or too quietly most of the time, rarely do so all of the time; consequently, the vocal aspects are interpreted as evidence of, or symptomatic of, a complex problem which itself needs remedial attention. On one hand, the person with a loud voice may frequently be recognized by his posture and general behavior as an individual with a hearing loss; his voice is explainable on a socially acceptable basis and there is no social penalty. In contrast, the person who often speaks loudly as though he were excited or egotistical or angry without obvious cause, will be considered odd, and social penalties will result. The individual who speaks too quietly in the classroom or in a social situation and who is not physically weak is considered to be shy or socially retarded. However, in some social and family groups, this "quiet voice" is fostered among young women, but it is usually condemned in young men as an evidence of weakness. It is probable, therefore, that appropriate loudness of the voice constitutes one of the principal signs of personal adequacy within the family environment.

Description and classification of discrete disorders, such as the pitch and loudness deviations mentioned previously, simplify presentations at meetings of this type, but they tend to obscure the fact that such vocal differences often exist concurrently and may vary in relation to each other. Furthermore, pitch and loudness are often intertwined with other types of speech and voice disorders. The multiplicity of vocal factors and their complex combinations contribute to the varieties of voice and consequently to the difficulty of description and classification. Disordered voices are composed only rarely of single types of deviation; usually they contain mixtures of vocal elements that are themselves variable in degree.

Vocal quality refers to those tonal characteristics that identify voices even when they are being produced with identical pitch and loudness. The disorders of voice quality are deviations from the normally expected vocal sound and are designated by such terms as hoarseness, breathiness, aphonia, nasality, and so on.

Perhaps the most commonly used term for voice quality disorders is "hoarseness", a label that usually refers to a group of phonatory deviations that are popularly associated with "laryngitis" or "cold in the throat." Most persons with otherwise normal voices have experienced hoarseness temporarily during the course of a respiratory disease; or intermittently with the accumulation of mucus on the vocal cords which causes a roughness of voice that is relieved when the offending material is removed by coughing or clearing the throat. This personal experience with hoarseness enables individuals to associate the problem with the larynx and to recognize the disorder as phonatory. Hoarseness has a roughness and noisiness about it that contrasts with the smoothness of the normal voice.

The commonness of hoarseness reduces its social stigma, yet persistent hoarseness may carry serious implications about health, employability, or social adjustment. If the disorder is of recent origin, it may be a symptom of disease or structural change that requires immediate medical attention. On the other hand, if the

voice has been hoarse for some time and the laryngeal condition is stable, the health implications become secondary to the social and economic considerations. A hoarse voice may reduce the individual's personal effectiveness by making him difficult to understand or unpleasant to hear and thereby restricts his choice of occupations.

Another term that is associated frequently with abnormal voice quality is "breathiness," a problem which, like hoarseness, has many varieties and degrees of severity. Its name suggests that the important, audible component of the sound is the noise that is produced by the flow of breath, similar to that heard in whispering. Breathiness may indicate laryngeal disease, but frequently, particularly when it exists in high school and college girls, it signals imitation of some actress who has adopted this quality as a sex symbol. In our current society there is no social stigma for this type of voice.

A third phonatory quality disorder that is described variously in the literature is frequently called "harshness." It has a rasping sound, and some clinicians recognize it primarily by the presence of "vocal fry" or glottalization. It is often identified with hard-driving businessmen who appear to work under great environmental pressure. However, a simple or uncomplicated form of harshness is found commonly but intermittently in the speech of adolescent boys and young men who attempt to force the pitch below the normal range in an effort to sound more masculine. The problem may result from a laryngeal disorder, but it is usually linked causally to environmental conditions.

One other phonatory defect, from among many, that should be introduced here is aphonia, a problem that often has a close relationship to family and environment. Aphonia is a disorder in which the individual who is afflicted speaks only in a whisper. The loss of voice can occur at any age, but is more common in adults, and it may develop either suddenly or over a period of time.

Most persons in our society have lost their voices temporarily, either as the result of shouting at an athletic contest or in conjunction with "laryngitis." In consequence, the problem usually carries no real psychological or social penality. However, persistent aphonia can signal the presence of serious laryngeal disease or emotional disturbance. Aphonia as a vocal symptom limits the patient's employment and his association with friends; it can be frustrating and emotionally disturbing. However, its social acceptability makes it an ideal escape from competition and responsibility for those who wish such relief. The range of possible causes for aphonia, from organic impairment to hysterical reactions, emphasizes the importance of careful diagnosis and close cooperation between the medical profession, including psychiatry, and speech pathology. The speech pathologist usually assumes his rehabilitative role after the medical specialists have performed their therapies, but he may have the initial responsibility for evaluation and referral.

In the preceding comments, the entire emphasis was placed on the larynx and the phonatory deviations originating there. However, when the sound that is generated in the larynx passes through the pharynx, mouth, and nose, it is unavoidably modified by the resonance characteristics of the passageway. As the volume and shape of the respiratory tract are varied, a selective emphasis is exerted on the partials in the complex tones that are flowing through. Such adjustments create the vowels and consonants, and they also contribute to such paralinguistic factors as individual or personal voice characteristics. When the nasal passageway is opened to the resonance system by the lowering of the soft palate, a so-called nasal component becomes prominent in the sound. This audible element is normal in the [m], [n], and [d] consonants but is abnormal in all other English sounds except in certain regional dialects.

Hypernasality is a term that includes several voice qualities that are associated with the excessive use of the nasal resonator when such use is not normal in the utterance. When one of these voice deviations is present singly or as the most prominent aspect of a complex voice disorder, the voice is described as being hypernasal, and it may carry serious social and economic consequences for the person who possesses it. In some forms it interferes with the intelligibility of speech; in others it implies either defective oral structures or an impoverished family background. Usually, it is esthetically unpleasant to hear. Hypernasality is frequently blended with disorders of phonation, thereby creating extremely complex vocal deviations in which the component parts are difficult to identify individually.

Another type of hypernasality is called nasal twang and represents a form of voice deviation that is usually functional. It is associated in various forms with certain dialects, and with hawker occupations such as auctioneering and newspaper vending. However, a similar sounding voice disorder occasionally accompanies the presence of polyps or other nasal obstructions situated anteriorly in the nose.

It is customary in discussions of voice disorders to contrast excessive nasal resonance with the lack of normal nasal resonance, a quality referred to as hyponasality. Hyponasality is the quality that accompanies a "cold in the head" or blockage of the nasopharynx by enlarged adenoids, polyps, or other obstructions. Occasionally this problem may also have a dialectal base.

What is the role of the environment in the cause and the alleviation of voice disorders?

The environment contributes in three major ways to the establishment of voice disorders: (1) the voices of the family serve as models that may be imitated; (2) the living, playing and working situations may provide the stress of interference or competition causing vocal abuse; and (3) the environment may contain allergens and irritating substances that adversely affect the mucosa and deeper structures of the vocal organs.

Imitation is observed most commonly in resonance disorders, particularly hypernasality. These deviations often persist throughout life and are recognized as family vocal patterns. Obviously, these voices are defective only when they are so judged by someone outside of the home. Occasionally a phonatory problem occurs when a boy attempts to force the pitch of his voice downward in an attempt to duplicate the masculine voice of his father or brothers. Usually permanent vocal disorders do not develop because the voice changes that occur normally at puberty solve the problem. However, where adequate voice change does not occur and a compensatory vocal-fry harshness is acquired, it may persist into adulthood. Occasionally, the opposite type of adjustment appears in which the adolescent boy who lives largely in a female environment prevents the change to a masculine pitch and maintains instead the high pitch of the juvenile.

When the environment in which an individual works, plays, and lives creates a need for excessively loud voice or for extended periods of vigorous talking, the laryngeal structures are traumatized and chronic changes in the vocal organs often result. Children in large families, where vocal competition is customary, boys who shout during athletic contests, cheerleaders, employees who must talk in the midst of loud industrial or other noise represent the kinds of persons and their activities that lead to voice disorders.

A statement by Jackson and Jackson in 1942 has become a classic and is as true today as it was 30 years ago:

> "Unquestionably the greatest of all causes of laryngeal disease (and hence phonatory problems - *author*) is the excessive use of one of its normal functions, phonation. . . The patient with chronic laryngeal disease is almost always a person who either talks constantly or uses his voice professionally, or often, both. There is little use asking the patient if he talks much. For some curious reason a patient who talks all the time he is awake will insist he talks little. It is not only the singer, the lecturer, and the huckster who suffer from occupational abuse of the larynx. Teachers are especially frequent sufferers and persons who talk in noisy places such as factories where machinery is running often develop chronic hoarseness. . . There is a great variation in the amount of abuse the larynx of different individuals will stand; but every larynx has its limit. To go beyond this limit means thickening of the cords, and a thickened cord means a hoarse voice. Not only is a thickened cord a poor vibrator but it throws great additional work upon the thyroarytenoidei. These muscles instead of growing stronger grow more and more feeble, less and less able to cope with the increased requirements. A vicious circle is established and this renders cure a long tedious process."

The effects of vocal abuse were referred to by Ballenger (1969, 389-390) as hyperkenetic phonasthenia. He says,

> "Phonasthenia or functional vocal fatigue is due to vocal abuse. The amount of abuse necessary to produce the condition is quite variable. Persons using their voices professionally and the elderly are more prone to develop intermittent vocal fatigue.
>
> "The underlying disorder is weakness or fatigue of the vocalis or thyroarytenoid muscle. As a result, the tension and form of the vocal folds cannot be maintained. This occurs most often in singers and public speakers as a result of overuse of the voice. With senility, the thyroarytenoid muscle is subject to atrophy and loss of tone which may precipitate phonasthenia with normal voice use."

Vocal trauma often leads, also, to other types of laryngeal disorder. Vigorous shouting and cheering may cause vascular engorgement, injury to the joints or musculature, resulting in arthritis, myositis or, more often, hematoma. These subepithelial hematoma "do not always become absorbed; often they become organized into fibrous tumors that increase in size as the result of irritation and inflammation." (Jackson & Jackson, 1942, p. 378) They are often on the vocal fold edges, where they cause breathiness or hoarseness according to associated conditions.

Prolonged vigorous use of the voice frequently causes vocal nodules. These lesions are by definition a type of polyp, but their unique relationship to vocal trauma causes them to be treated in the literature as an entity. In referring to the etiology of nodules Ballenger states:

> "The factors important in the causation of chronic laryngitis are influential here. However, it is probable the persistent vocal abuse of hyperkinetic phonation is the single most important precipitating factor. As a result, the lesions are seen most commonly in professional voice users

and in nervous, hyperkinetic individuals. The lesions occur at the center of the membranous cord because this area is the center of vibratory motion of the cord."

Irritating substances such as dust, dry air, smoke, and pollens in the environment that can be breathed into the respiratory tract often cause hoarseness. The mechanism by which these laryngeal irritants generate the mucosal changes that cause the hoarseness is the production of "... vasodilatation and hyperemia. This may in turn precipitate submucosal hemorrhages, interstitial edema and production of an inflammatory exudate consisting mainly of mononuclear cells. Eventually, the injured area is invaded by fibroblasts, causing fibrosis and hyalinization with thickening and deforming of structure. The patho-physiologic cycle may be arrested at any point with a resulting clinical entity." (Ballenger, 1969, p. 348)

The vocal folds appear pink, the small vessels on their surfaces are dilated and their glottal margins are rounded when they are approximated for phonation. The thickening of the mucosa and alteration of the shape modifies the mass of the vocal fold, its compliance, and the manner of glottal closure. The result is atypical vibration that can produce breathiness, hoarseness, or even roughness if the changes are sufficiently advanced.

Therapy for vocal disorders is accomplished through three general procedures: (1) surgical and medical treatment of the organic problems; (2) vocal reeducation for the direct modification of voice production; and (3) environmental or psycho-social therapy. Medical treatment and vocal reeducation rarely accomplish any lasting improvement in a defective voice so long as the client lives or works in an environment that is responsible either directly or indirectly for vocal abuse or impairment of the vocal organs. Vocal therapy is a continuous 24 hour per day process that must include a favorable environmental setting.

The procedures that may be used for improving the environments of the family, school, and work in the interest of voice require time and may appear to be far distant from vocal therapy. However, the efforts are usually extremely beneficial and may constitute the total therapy. Occasionally a patient can modify his speaking requirements in his various environments through his own efforts, after he understands the relationships between his voice and his surroundings. More frequently, however, it is necessary for the speech pathologist, physician, social worker, or counselor to become involved with the individual in his environment and to provide the actual leadership for seeking beneficial changes. This procedure requires interviews with parents and teachers, if the problem exists in a child, or with employers and families when the disorder is present in adults. Where sufficient insight and understanding exist, adjustments are usually not difficult to accomplish, but when the patient considers his voice to be relatively unimportant or when the employment situation cannot be altered, the chance for environmental change is remote. The conscientious speech pathologist will rarely feel justified in refusing to work with an individual primarily on the basis of a detrimental environmental situation, but he must realize that the therapeutic process is more or less jeopardized.

There are at least two objectives of interviews with members of a patient's family. Basically, the purpose is to reduce both the amount and the loudness of the patient's talking when he is at home. He should be encouraged to speak more softly and to speak less frequently. Sympathetic reminders by persons within the family about excessive use will help the patient control his voice.

The second objective of conferences with the family is related to and supplements the purpose of the first but involves the family more and the patient less. Where possible in a vocally noisy family, all members should be urged to reduce the amount and loudness of their own talking. Lessening of vocal competition is of great benefit to the patient and where family cooperation occurs, improvement is enhanced. Unfortunately, it must be acknowledged that the psychological and social factors that create the noisy family are not apt to be changed willingly or readily. One method that usually helps a family realize the amount of speaking done and thereby contributes to improvement of the vocal environment, is the establishment of a period of 5-minutes during the evening meal during which no one is allowed to say anything except in an emergency. Those who break the silence are required to pay a penalty. This practice causes many persons to become aware for the first time that they do indeed talk more than they thought they did.

Modification of the environment of an adult who has a voice problem is often accomplished through direct work with him. Discussions about laryngeal trauma and its consequences provide insight for the patient into such vocal abuses as excessive speaking, shouting at sporting events, loud singing, and loud talking in noisy working situations. As a consequence, the individual arrives at an understanding of what he must do to improve his voice. If his employment environment cannot be modified, he may be able to change his manner of speaking by using an amplifying system to compensate for the noise. He may also be able to use ear wardens (stopples) to reduce the effects of the surrounding noise and thereby lessen

the tendency to shout when attempting to speak in the noisy environment.

The place where an individual lives or works may be detrimental to the voice, not only because it encourages vocal abuse but also because the air in it contains pollen, dust, or other pollutants that irritate the linings of the airway. Frequently, the regular use of air conditioners, air filters, face masks, or humidifiers can lessen the detrimental effects sufficiently to reduce or eliminate the problem. In rare instances it may be necessary for an individual to move his place of residence or occupation to escape from the environmental irritants.

Summary: An attempt has been made to point out that many voice disorders are intimately related to the family and associated environmental factors. These disorders are determined primarily by personal judgments that are environmentally and culturally based; many voice problems are precipitated by social and physical factors in the environment; and therapy for voice disorders may be accomplished entirely through environmental modification, or with such auxiliary support. It is apparent that medical therapy and vocal reeducation cannot accomplish much unless the environment is supportive.

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Discussion

MOORE: I hope this discussion, as well as those that will occur in the group sessions will imitate to some degree the procedures used by our medical colleagues. Undoubtedly many of you have attended discussions of medical groups where the professional elements under consideration were paramount. The individuals involved in such discussions usually are not important as individuals. Consequently, I hope our questions and inquiries will press relentlessly into concepts without worrying about the person himself. There is no such thing as delicacy when it comes to professional discussion. Now we of the panel may not have answers, but I believe this fact will not keep the discussion from generating concepts and insights. With that kind of invitation to the panel and the audience, I would like to ask Dr. Bangs, on a ladies first basis, to open the discussion.

BANGS: I have a question, but first I would like to preface it by saying that I believe counseling, in general, must deal with the intellectual level and the feeling level of the patient as well as his family. So, let's assume Dr. Moore that I, a speech pathologist, am working with a teenage boy diagnosed as having a voice disorder. During therapy this boy tells me, "My dad says if I don't change my voice, he'll cut off my allowance. I've been trying to do something about my voice but I just can't seem to change, and I don't know whether it's best to leave home or what I ought to do." My question is, "who provides counseling that deals with the feelings of the boy, and the feelings of the parents?" Should this be the same person, i.e., the speech pathologist, who is also "intellectualizing" on the problem or should another discipline be represented?

MOORE: It seems to me that speech pathologists should be capable of making the initial approach with this boy. I believe we have to make an evaluative judgment of his vocal potential and to start him toward an understanding of his psycho-social difficulties. He has focused his attention on voice and even though the cause of the disorder may be an environmental problem, he must be approached initially on the vocal problem. The information supplied and implied in Dr. Bang's statement of the problem may be summarized as a basis for my point of view as follows: this boy is objecting to his environment and the pressure exerted by his father; he isn't capable of leaving home despite his own beliefs. Consequently, he does not have a choice between leaving and staying; he is dependent upon his father. The father will continue to exert pressure until there is some help about the voice. So what I'm trying to say is that the voice problem should be approached directly in an effort to start the boy working on his voice. This action will satisfy the father's demand that something be done. Concurrently an approach should be made to the father to help him understand the environmental factors. If pressures from the family can be identified, then I believe there could be some modifications in the family attitudes through counselling procedures. However, some of us in speech pathology may not be trained sufficiently to serve as both voice therapist and counselor. If it is possible to get help from a counselor, I believe this should be done. On the other hand, many families will not admit to the need for professional counseling. In this situation we can develop their readiness for such service.

In summary: I believe that if this boy came to a speech pathologist, this person would have the responsibility for starting the vocal rehabilitation and possibly, for managing the total rehabilitation program.

Undoubtedly, other panel members have opinions on this question.

ALLMOND: I'd like to ask, once you've started it off, then what happens? Who takes over or what takes over and where does it go from there? Let me just add in parentheses that as a pediatrician I'd be itching to get a hold of this boy and his father. I'd like to leave the treatment of the voice disorder to you folks, but I'd really be interested in sitting down with the boy and his father. My initial question reflects that of Dr. Bangs: if you as speech and hearing professionals are not trained to do this, is it appropriate that you get the training and that you become well-equipped in handling the kinds of things which she's bringing up?

MOORE: If we had the pediatrician to help, then I would be more than happy to urge him to help with the family situation. Unfortunately, too often we don't have this opportunity. How can we draw the pediatrician into the rehabilitation of a voice disorder? We regularly seek the help of the otolaryngologist for obvious reasons, but I think too often we don't involve the pediatrician. What could the pediatrician do for this boy?

ALLMOND: I don't like to get hung up on the walls of disciplinary boundaries, because I don't know that it's any more exclusively the pediatrician's province than it is, let's say, another discipline that's involved in the whole business. Parenthetically, it's not all that easy to entice pediatricians to become interested in things of this nature, as you're well aware; we're trying this at UC Medical Center in a very direct way but the going is tough. I'm wondering if there should be, and now I'm outside your discipline looking in, if there should be or already is training within your field towards this kind of counseling.

MOORE: There is some training in counseling procedures but I believe there is not enough. The problem comes back again to persons in our field who have a professional myopia. There seems to be a tendency to see the tremendous values of those subjects and experiences that have been in our own training and to exclude other areas. Unfortunately, there appears to be little attention given to family counseling in the academic preparation of speech pathologists.

BANGS: I have a question germane to yours. If there is to be a physician involved in the counseling, and certainly I see a need for this, and if the speech pathologist is to be involved in modifying this voice behavior, then should these two people meet with the patient or meet with the family rather than meet individually? I can see many problems cropping up if I, as a speech pathologist, talk to a person who has very bad feelings about himself and about his family, and then he goes the next week to somebody else who takes a different stand. We just may be tearing this person to shreds rather than helping to pull him together as an individual. What would your comments be?

FLOWER: This kind of joint session is a marvelous idea, but even working full time in a Medical Center, in close association with the medical profession, it's frequently almost impossible to arrange. We must also recognize that, with the exception of children with voice disorders who may be in the care of pediatricians, the medical specialty most concerned with voice disorders is otolaryngology. Most otolaryngologists admit their lack of security, concern, and perhaps interest, in anything beyond the possible surgical aspects of voice pathology.

I believe — and I think we encounter this more frequently in voice disorders than in any other place — it is extremely important that we accept the concerns of the patient as he states them, even though those concerns may not be the important concerns. If he's concerned about his voice, telling him on the first interview you don't need me, you need psychotherapy, is probably going to send him home and not to the psychotherapist. There must be a period of time in which we work with the patient on the symptom level hopefully toward getting the kind of help that's actually needed. I also wonder about the father of your hypothetical patient. If it were not the voice disorder, would it be the length of the hair? I think maybe again that the complaints people come in with, are not necessarily their major concerns.

SHERMAN: I guess being a developmental psychologist I have a number of advantages over speech therapists and physicians. The primary advantage is that my role is not defined. Very few people really know what psychologists do or are supposed to do and this gives us extraordinary freedom in doing whatever we want to do. Psychologists, particularly those working in behavior modification, have another advantage – they're very arrogant. They assume that their province is behavior and that they can deal with any kind of behavior–just present them a problem. This is obviously false, I think, but nevertheless, it's a very common attitude among behavior modifiers which I share for the most part. Now, given the problem as you stated it, there is a number of issues that I would be concerned with. One, I guess, is simply the definition of the problem. The father apparently is very upset about some characteristic of the boy's voice, and a very reasonable question might be, "Is it a problem?" Is it just something that's of concern to the father that's not of concern to the mother, that's not of concern to any of his teachers? If the boy's voice is just of concern to the father, I might say, "Well, it looks like we primarily have a problem with the father. He's harassing the kid about his voice and we may need to do something about this". On the other hand, if a number of people judge the boy's voice to be a problem, a socially important problem, then it would seem likely that some modification is necessary in the manner in which the boy speaks. Then it simply comes down to the question of, how is that modification to be made, and is the family to be involved in this modification? In my opinion, it's absolutely necessary that the family be involved in the modification, for a variety of reasons. As

a behavior modifier and as an operant conditioner, one of my primary goals is to control the consequences of behavior to make some changes in the consequences of the behavior so as to produce a desirable change in the boy's voice. Some of the most important, powerful consequences in a child's life are those provided by the family members. The father's threat to do away with the boy's allowance certainly is a consequence that could be used to modify the boy's voice. However, in my opinion, it's the wrong type of consequence. First, it's a threat. It's an aversive kind of contingency which I don't think is the best way to approach establishing new behaviors. Secondly, it has an all-or-nothing characteristic. It says to the boy, "If you don't change, all of a sudden on your own, then I'm going to take away your allowance." The threat simply has no flexibility in terms of providing consequences for small changes in a desirable direction. As a behavior modifier, I would want to involve the family to define what the problem behavior is, to specify what a desirable change would be, hopefully to provide some kind of measurement system for the behavior, and then to try and involve family members in providing positive social and other consequences for changes in the behavior which are towards a desirable direction. Requiring the terminal behavior from the boy right to start with, is, I think, a very unrealistic goal.

ALLMOND: How would you do some of those things, Jim?

SHERMAN: Well, most of the work that I've done is with autistic children, retarded children, and mute psychotic adults; and it's a different problem involved in all those. Nevertheless, there are some similarities. Probably what I would do first of all is to bring the parents into the situation and then try and get some definition of the problem behavior. What is it about the boy's voice that should be changed and in what ways should it be changed? Given that there is some agreement that there is a problem, and on the basis of my own observation of the boy's voice, I would probably bring the parents in and simply lay out the problem, what are the characteristics of the problem, and what are some of the approximations towards a solution to that problem.

ALLMOND: Would you lay that out, or would they lay that out for you?

SHERMAN: I would probably lay that out for them, on the basis of what they said and what I have observed. I personally am very directive about what I do. I would also examine the characteristics of the boy's voice in a variety of situations. But I would probably lay out the problem to the parents, at least as I saw it. At this point they would probably also bring up additional issues. Any time you have a family in an interview situation and you start talking about voice, a variety of other issues comes up. For example, three minutes into the interview the father may start complaining about the boy's long hair. As the wide variety of other problems comes up, you may have to say, "Look folks, let's deal with voice first and then we'll worry about long hair," if this is a problem.

BANGS: I would like to interject a question. As a speech pathologist, let's say I've not had any of this training. Do you think it's possible for a person like myself to be able to take a short course, a semester's course, or to bring in a consultant to train me so that I can do these kinds of things? Or, will there be enough "behavior-modifier-type" people in the community to call upon, and if so, how expensive are their services? Cost can get in the way of therapy.

SHERMAN: I don't know about the expense. Many behavior modifiers in cases like this do it for free, because they're interested in the research possibilities. Whether that's a satisfactory answer or not, I don't know. My primary interest is not in training the family members to be supportive personnel, but to be the therapists. Given that I'm making the assumption that I could train family members to be therapists in that situation, I think it would be reasonable that anyone could be trained. It's not that complex in some ways, in terms of the basic concepts. In terms of the actual utilization of procedures and putting those procedures into effect, it becomes very, very complex, but I don't think there would be any difficulty in training speech therapists to do that. In fact, I think that many speech therapists that I'm acquainted with, do enter into the family situation and try to restructure the interaction patterns and the social consequences to bring about some desirable change in behavior.

BANGS: One more question: What kind of overlap is there among these specialists; that is, you, as a psychologist in behavior modification, the psychiatric social worker, the psychological conselor? We, as speech pathologists, have many routes we can go, how would you . . .

SHERMAN: I really don't know. Typically, the paths of interaction are broken or paths of communication are broken between various disciplines for a variety of reasons, primarily theoretical. I've worked with medical doctors, with speech therapists, and with social workers,

and as long as we can agree on certain assumptions there is very little difficulty in working together. We need to agree that we are primarily concerned with changing the behavior of the patient. If we will agree that that's a primary concern, then we have a good start. We don't have to agree that that's the only concern, but only the primary concern for the moment. Secondly, if we agree that changes in the environmental conditions are necessary to produce those behavioral changes, then we're in the right ballpark together. We typically have little problem working together on that kind of basis. But those two agreements may be hard to arrive at because of my professional training and the professional training of other therapists. If we can't agree on these two issues, then we simply don't work together. There are no reasonable grounds for doing so.

FLOWER: i'd like to return to something you said earlier; I don't think its a question of being directive versus nondirective. I am concerned, however, at accepting too readily face statements of problems. I thoroughly agree with you that we should work toward clear definition of the behaviors to be modified.

I'd be concerned, however – using Tina's example – about accepting at face value that the first complaint represents the most important behavior in this family to modify at the moment, and recruiting the family around it. I can see where potentially this might feed into something that's not very good in this family system. I would rather work a little more slowly and help this family define their problems a bit more exactly.

SHERMAN: Very often it's the case that the original complaint that a family or an individual of a family comes in with is very, very different from the complaint that they bring up in subsequent sessions. You find yourself virtually with a snake's nest on your hands, that everything is all intertwined. The only way that I've tried to handle this is simply to get some agreement on what is the first problem that you want to work on – something that most members of the family will agree to. This, to me, is extremely important. Given that you arrive at some behavior definition of a problem and develop a therapy procedure to begin to ameliorate that problem then you can start on the next problem. But I would never attempt to handle all of the many problems that might exist simultaneously. I just don't think it's a feasible procedure. It may be difficult to obtain cooperation from the family members since there's no reason that the family should believe that you can help them with their problems. Psychologists are very often in the position of being snake oil salesmen. They have not produced evidence that their procedures are effective. They have not produced evidence that they really know what they are doing. A therapy procedure may involve rather extensive changes in the present patterns of family interaction. Why should a family coming in for therapy, speech or otherwise, fully cooperate with you unless you can demonstrate some effect of your procedures? That's one of the reasons why I emphasize a measurement system for the problem behaviors and keeping a daily record of what's happening so you can see some kind of change in the behavior. Given that you have a number of examples of behavior change within a family, it seems to me you are in a relatively strong position to enlist further cooperation. You have demonstrated your functional effect on the behaviors of the family or individuals thereof, and you now are out of the position of being a snake oil salesman. The measurement system is the only safeguard we have against that.

BANGS: How many times a week would you meet with these people? Would you initially propose ten meetings, one day a week, for an hour? Would you meet in the family's home or in the therapist's office? Who comes to these meetings? – the mother and the father? Which age siblings? – Do you take them individually, or in specific groups?

FLOWER: By's a much more experienced family therapist than I; would you comment?

ALLMOND: I'll say a little bit. My bias and vantage point come from the fact that I'm very interested in conjoint family therapy a la Virginia Satir, Nathan Ackerman, Jay Haley, Don Jackson. Those are some of the names whose theoretical notions seem to fit what I like–and starting from that vantage point then my approach with this family would be to have them all come in, including siblings, mother and father, and the identified patient and in much the same way (although I'm not sure our methods would be the same, my end point would be the same) I would want to arrive at some definition as to what's the problem and what does the family want to work on. But, along with Dick, I might go a little more slowly and allow them to expand their views of the problem rather than too quickly putting it out on the table, as I was seeing it.

SHERMAN: I guess my only response is that psychologists typically don't have the prestige of a medical institution behind them and the assumption that they know what they're doing–very often a psychologist has a reputation of one who does not know what he is doing. I'm really very concerned with this. If you're going to do effective family therapy then you have to

have a situation that's responsive to your requests to change the present environmental conditions. So it's absolutely essential, for me at least, to have the cooperation of the parents. One of the best ways of getting the cooperation of both the parents and the children is by showing them that this type of therapy works. That's one of the reasons why I'm most interested in getting in as soon as possible and attempting to achieve some sort of desirable outcome, whether it's on a very minor behavior or not, it doesn't matter.

MOORE: It appears that the old adage which states that there usually is a good reason for a proposal and then there's a real reason, may apply to this case. The good reason that the father focussed on initially may be only the peak on the iceberg. I believe the discussion has demonstrated amply that there is need for further exploration. The person or persons who should conduct this exploration has not been clearly set forth. It is obvious that individuals in any of several professional groups could very well do it; and, I believe, that we as speech pathologists have a responsibility to accept patients of the type described in Dr. Bangs question. I believe it is unprofessional, at the initial stages, to refer such a problem immediately and say it belongs to somebody else. On the other hand, I believe it is unethical for us to attempt to carry a procedure beyond the point where another person could more adequately handle the problem. I wish I knew how to determine where my inadequacy stops and his adequacy begins. We all recognize that the point of transfer must be determined in each case and where there is doubt, it is probably wise to refer. Undoubtedly this particular group in the discussion sessions will have much to add on this point; you probably face the issue frequently. Is there another question that should come into our discussion? Tina, do you wish to introduce another problem?

BANGS: This I'm sure you can dispell in a hurry. You alluded in your presentation this morning to the fact that, in the dialect languages, we have children and adults whose phonologic features are different from persons in other communities–twangs–this kind of thing. Let's say that we have a child moving from one vicinity to another where voice qualities differ, and the speech clinician in the public school sees this child. Should there be a therapy program to change the prosodic features?

MOORE: I expect there are persons in this group who are much closer to this problem than anyone of us here on the panel, but I have some beliefs about it. I am sure you would agree that we probably would not define such a dialect deviation as a defect. However, it signals a difference in the speech and if the dialect varies sufficiently to set a person apart from his associates in his environment, then I believe we as speech pathologists are obligated to help develop an acceptable form of speech. Conversely, if the vocal characteristics are not impairing him; if we, as speech correctionists, are the only ones who judge the voice to be different, I question that we should attempt to force a change.

The Family of the Laryngectomee

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HISTORY AND INTRODUCTION

The laryngectomee is a substantially different person than he was before his operation even though his handicap is not immediately as noticeable as it is for one who has lost an eye, or an arm, or a leg. This fact is precisely stated by Diedrich (3), "The full impact of amputation of the larynx is not ordinarily apparent. A fully clothed laryngectomee walking down the hall does not look much different from anyone else. It is not until he is asked to speak, cough, breathe, eat, smell, bathe, lift, cry, or laugh that his differences become patent. In other words, little is left unaffected in the laryngectomee's physical, psychological, and social behavior."

As an individual, the laryngectomee has been studied in a number of different ways. Even his habits and personality prior to the operation have been studied by Webb and Irving (11) who conclude that many laryngectomees before cancer manifested the oral triad of excessive talking, smoking and drinking. These two writers also point out that some laryngectomees are unstable in the direction of asociality rather than in the direction of neuroticism. Stoll (10), among others, has ably described his fears:

> 1. The fear of the word cancer and the many semantic implications involved in such a word. The fear of death is probably the paramount fear. 2. The fear of operations in general. 3. The fear of the permanent loss of voice. The anxiety associated with this fear results from the assumed consequences of permanent aphonia. The patient's entire pattern of interpersonal relationships built up through the years becomes threatened. He worries about the probable loss of his job, his security, his friends, etc.
>
> The fears often experienced by patients postoperatively are as follows: 1. The fear of the recurrence of the cancer, hence the continued fear of death. 2. Fears due to the new physiological relationships resulting from the laryngectomy. (The inability to lift heavy objects, the breathing and coughing from the tracheal stoma, the often impaired sense of smell and taste, the cosmetic liabilities of the tracheal stoma, etc.). 3. The fear of old age which has been aggravated by the feeling of uselessness resulting from the loss of speech. The depression frequently observed often has its roots in this specific fear. The loss of earning power further contributes to this feeling of uselessness. 4. Fear of being unable to re-establish old patterns of interpersonal relationships. 5. The fears associated with the anticipation of failing to learn a new method of speaking.

Harrington (5) has stressed the complication of age. It should be noted, parenthetically, that 60 is the median age for male laryngectomees so at least half of the group has entered into some of the problems of aging aside from laryngeal amputation and loss of voice.

Amster (1) has shown that conventional personality tests indicate that laryngectomees are essentially the same as a class when compared to others. In terms of what these tests measure, this writer is sure that differences do obtain based on methods of titration different from those in standardized tests. One of the bases for such a judgment is stated by the writer (8) and based on the review of case studies done in England by Hodson and Oswald (6) as well as studies done by himself. In brief, the successful esophageal speaker is outgoing, the "best" in his trade, often devil-may-care, and potentially sociable even though he may have to struggle to be heard in social situations.

Most laryngectomees, like most people in the general population, are married and have children. If children are living at home, they will likely be in adolescence and will often be rather especially sensitive to peculiarities in their parents. The spouse will usually be of comparable age and will be experiencing at least the first signs of presbycusis.

Statements of advice to laryngectomees have, in general, been based on empirical data. The surgeon or speech therapist or laryngectomee speaks or writes advisory comments to the laryngectomee in regard to dress, voice, personal hygiene and so forth. These comments will be realistic and useful only if the advisor has adequately filtered some facts and made sound judgments. By way of example of advice based on nonfactual data, a few years ago many surgeons, speech therapists and laryngectomees stated that one could learn if he only tried. In other words, with "will power" odds were 10 to zero. The facts, based on the A. C. S. survey, indicate that odds on a nation-wide basis are 7 to 3 in favor of learning speech. These are good opportunity odds, but not good enough to bury the artificial larynx.

Another example, but a good guess this time, Mrs. Ann Lampher, of I. A. L., has for years insisted that female laryngectomees retain and even stress the feminine in their voice. Many have been skeptical of the latter idea, for the superficial acoustical aspects of the female voice are masculine. However, in 1969, this writer with Knorr (9) found that the female laryngectomee voice can be identified because acoustic formants are similar to those in the normal female voice.

The most useful items of advice in regard to families of the laryngectomized have come from two studies. First is the study of Diedrich (2) from the Speech and Hearing Department, University of Kansas Medical Center and the Veteran's Administration Hospital, Kansas City, Missouri, where 87 answered his questionnaire. Second is the study of Warren Gardner (4) based on laryngectomized women, three-fourths of whom were married at the time of the operation. Neither are studies of intra-marital relationships *per se*.

With inevitable injustice due to truncation, these studies make the following points. First the Diedrich Study:

1. Speech, coughing, breathing, eating, smelling, bathing, lifting, crying, and laughing are altered. Most of these changes may be related to personal relations in marriage. An example from this writer's experience is that of an out-going and emotionally expressive woman who had both laughed and cried a great deal. Subsequent to the operation the husband judged from her silence that his wife had undergone a marked change of personality and he became depressed. Analysis of the situation indicated that little, if any, change had taken place in the woman's psyche. Discussion and counseling bettered the situation. Many a good cook is not appreciated as she once was because her husband has lost or in large part lost his sense of smell. (Seventy-seven per cent of laryngectomees have permanently lost their sense of smell.) Other examples abound.
2. With esophageal speech there is less speech after the operation than before. This could give positive as well as negative responses.
3. Speech is at times tiring (57%).
4. If the individual has good speech he is more likely to live with one or more persons. Those with fair or poor speech tended to live alone.
5. Speech is not as loud as before the operation. Consider, therefore, the effect upon the spouse with a hearing loss.
6. Speech is very much more difficult when emotionally disturbed, and much better when relaxed. However, how many marriages, even good ones, are always relaxed?
7. Speech is poorer in the morning.
8. Many have problems related to the drinking of liquids and swallowing of foods. Comment: The cook may have to learn to modify her cooking. Soup may be served in a cup.

Gardner Study:

1. More than three-fourths of the women were bolstered because their husbands were with them when the report of cancer was given them. Three-fourths of the men continued full support during the operative period.
2. A minority of husbands thought only of themselves. A few actively rejected their wives during the operative period and later.
3. Eighty-five per cent of single women accepted full responsibility for their surgery, whereas almost all of the married women could share the responsibility.
4. Only 23% of all of the women said they believed that surgery made them less feminine. However, 16% had reservations about their ability to display affection.
5. Forty-six per cent of the wives thought they were being avoided or overly babied, whereas fifty-four per cent wrote gladly of their husband's optimism and confidence.
6. More married patients (92%) than single (81.5%) who sought out their friends gained speech. In other words, if the quality of being outgoing is held more or less constant, the married women excelled in communication.

7. Sixty-six per cent of the husbands positively reinforced their wives' speech with forty-four per cent disliking or even making fun of their wives' speech.
8. Sixty per cent of the single women were depressed because relatives or friends did not visit them. There is no statistical break down between friends and relatives.
9. More married than single women had an unfavorable impression of their first esophageal speech sounds.
10. Many women felt that they were treated with indifference or even ridiculed about their speech. Fewer than one-half (44%) of married women experienced such treatment, whereas 67% of the single females felt so treated ("People were ashamed of me." "They were afraid of hurting my feelings." "People throw up when I try to talk to them." "They think I am deaf." "They are afraid of catching cancer."). People did not listen to them, became impatient, and often filled in with words that were not fitting to the thought that they were trying to express.
11. Sixty-six per cent of husbands were kind and helpful with speech.
12. One woman with five sons and grandmother to eight said her Christmas present to all would be a new voice.
13. One woman learned to talk so she could continue to raise and train dogs.
14. As regards intelligibility, married women excelled in telephone speech (71%) and singles rated 54%. In close conversation 81% of married women were effective with 66% of the singles effective.

There is much more to both the Diedrich and the Gardner Studies. The writer has only gleaned them for material relevant to the laryngectomee and his family.

PROCEDURES FOR THE PRESENT STUDY

Two questionnaires were developed of both the "yes and no" and open-ended type. One questionnaire was for the laryngectomee and one for the spouse. They were made out separately and mailed not to the writer, but to a departmental secretary. Upon being received, the results were tabulated and comments recorded.

The nature of the questionnaire and the results are revealed in the following report.

LARYNGECTOMEE FORM

GENERAL

Sex _____ Age _____ Married _____ Size of family living at home when operation performed _____ Employed _____ If so, type of positions _____ Retired _____ Housewife _____

N = 50

There were 124 male (80%) and thirty-one female (20%) laryngectomees reporting as of September 1, 1970. Their age ranged from 43 to 90. The median age was 62 for females with a range of 44 to 81. For males, the median age was 62 with a range of 43 to 90. Seventy-nine (51%) were employed. The positions ranged from service station attendent to corporation president. Sixty-five (42%) were retired. Eleven (7%) were housewives.

COMMENTS:

1. There are more females represented in this study than in a normal propulation of laryngectomees. In viewing the positions held by both male and female one immediately gains the impression that these individuals are middle-class plus, for a substantial number appear to be, or were, successful business and professional people.

2. Seventy-six per cent of our sample was married, thus, were, as far as we can determine, in favorable circumstances for learning esophageal speech. Generally speaking, only the man and his wife constituted the household which would be expected for most of the people in the age range considered. However, the size of the family did range as high as thirteen, although this was not a typical figure.

Operation

How long since your operation _____
(Example: 6 months, 2½ years, etc.)

Was it total? _____ Radical neck dissection (1 or 2 sides) _____

Asai operation? _____ Radiation? _____ : before _____ or after _____ operation.

3. The median number of years after the operation was three years and six months. It has been stated that laryngectomees seldom improve after a period of four years. Therefore, most of these individuals would have, in all probability, nearly reached a plateau as regards to speech development. Ninety-two per cent had a total laryngectomy with 47% also having a radical neck dissection. Fifty-five (76%) individuals of this 47% had one side and eighteen (24%) had both sides. In other words, almost one-half of our individuals were handicapped in regard to reaching for objects and other manipulations. With the females in this group, housekeeping would be very difficult because dishes could not be placed high in the cupboards not could they, for example, wash or dust anything with ease at a high level. There are directions that can be given to somewhat assist in reaching high objects, but these are seldom known to laryngectomees. It would be unrealistic for a man to continue a vocation of housepainting, barbering, wallpaper hanging, or carpentry if he had had a neck dissection.

Seven per cent of the individuals in our sample had the Asai operations, and it's doubtful that any population sampled would produce 7% with Asai operations except in California and around Osaka, Kobe and Kyoto, Japan, where Dr. Asai originated the operation. The writer can identify the surgeons who performed the operation, but cannot relate these to the anonymous data.

Irritants

I did not smoke _____ I did smoke _____ packs of cigarettes a day for _____ years.

My job of _____ caused irritation of my throat

with _____.
(Example: dust, smoke, etc.)

I drank: socially _____ occasionally _____ heavily _____ not at all _____

Ninety-two per cent of our population has smoked at some time. Strangely enough, 1.3% started after the operation. Only eight per cent of our population has never smoked. A few used cigars and pipes. Of those who smoked, the median was two packs or 30 cigarettes a day with a range from a few cigarettes to six packs a day. The median is represented by 38 individuals who smoked two packages of cigarettes a day.

Twenty-one per cent of our individuals previously held jobs under conditions which, from their report, caused irritation; for example: chalk dust for a teacher, engine smoke for an individual aboard ship, dust for a grain operator, chemicals for one in the oil industry, and plastic dust for a machinist.

Of those who drank, 50% stated that they drank socially, 36% only occasionally, 10% heavily, and 9% did not drink at all. Ninety-one per cent did some drinking. Some in the 10% group may have started drinking after the operation, perhaps even as a result of it. King Lowlks and Peirson (7) have figures which make ours look optimistic. They stated the "Laryngectomees are predominantly Caucasoid male smokers, in middle and later years, and 25 to 50% are alcoholics. Because of age distribution of veterans generally, patients in this series were significantly older at surgery than national averages." In contrast to the success rate in a normal population the group studied by King *et al* succeeded in esophegeal speech only 40% of the time. It is quite obvious that the veteran's population in age and attitude is significantly different from the norm. King also estimates that 4 ounces of whiskey and 30 cigarettes a day will multiply the chances of laryngeal cancer by a factor of 10.

The Surgeon, Surgery, and the Hospital

Did your surgeon counsel you sufficiently? _____

At the right time? _____ State briefly how the counseling could have

been improved: _____

How might nurses and other attendants have been more helpful? _____

_____

Were you counseled by a speech therapist in the hospital? _____

Was this helpful? _____ Briefly comment: _____

Were you counseled by another laryngectomee while in the hospital? _____

Was this helpful? _____ Briefly comment: _____

5. Eighty-five per cent of the population stated that their surgeon did counsel them sufficiently, and 88% of this 85% stated that counseling was at the right time. The majority of these typically commented that they would have like to have had for themselves and their spouses more specific counseling by the surgeon in relation to the operation and to speech following the operation. Sixty-seven per cent had no conflict about their nurses. In general, it was felt that the chief criticism of the nursing care was concerned with lack of medical knowledge on the part of the nurses; that is, knowledge related directly to the laryngectomy operation and its effects upon the laryngectomee. For example, they should be taught to clean out tubes, and not be afraid to use the suction machine properly. On the psychological side, they should be more honest and less optimistic.

In terms of percentage, 21% were counseled by a speech therapist. It is notable the 82% of those counseled by a speech therapist thought it was helpful. Fifty-nine per cent of our sample was counseled by another laryngectomee. Of this group, 81% considered such counseling helpful. The main benefit of counseling by another laryngectomee seemed to be in increasing morale and giving a challenge to the laryngectomee. However, females were depressed by visits from male laryngectomees. This precisely coincides with Gardner. There is little doubt that male laryngectomees should not counsel female laryngectomees in the hospital. The most affirmative statements are in regard to counseling by the speech therapist.

YOUR SPOUSE

Was your spouse with you when the diagnosis was made? _____

What was his/her reaction? _____

Did your spouse give sufficient support prior to the operation? _____

and immediately afterward? _____

Were you "babied" or overly protected? _____ When? _____

and by whom? _____

Did your spouse's attitude help you with speech? _____

Is your spouse hard-of-hearing? _____

Did your spouse seek employment? _____ Continue to work? _____

If new employment was sought, did any difficulties arise in your family? _____

After leaving the hospital, was it difficult to readjust to a normal sex life? _____

_____

How could your spouse have helped more with any aspect of your problems? _____

6. Seventy-two per cent of the spouses were with the laryngectomee when the diagnosis was made. Over 59% commented that they were: shocked, anxious, and deeply concerned. Ninety-four per cent said that they had sufficient support before the operation and 89% immediately afterwards. These figures are very high relative to other studies. It may well be that the Gardner study has had an impact on those who counsel laryngectomees. Seventy-four per cent (16% NC) denied that they were babied or over-protected. Seventy-nine per cent said their spouses' attitudes were helpful in learning speech. Only 8% admitted to a hearing loss. Only 8% felt that they needed to seek employment after their spouses' operations. Thirty-six per cent continued to work. In view of the large number working, the 8% who sought employment does not constitute a very meaningful figure. Of those who sought employment, 20% (2 out of 10) had family difficulties arise. Twenty-one per cent of our population admitted difficulty with their sex life subsequent to the operation. Twenty-seven per cent had no comment to make which may indicate a negative attitude about this question. Counseling appears to be needed in this area.

Fourteen per cent of our laryngectomees said that they could have had more help from their spouses. The usual comment was that more patience, understanding, and listening were needed. Some commented that their spouses made them nervous. In one case, the spouse knew of the cancer before the patient. Sadly, one laryngectomee said his wife could have been more helpful if she had not deserted him.

CHILDREN LIVING AT HOME

Ages: _____ Sex: _____

How did they react or over-react to your operation? _____

How did adult offspring behave? _____

7. Twenty-eight per cent had children living at home and their ages ranged from one to 30 years, with a median age of 15. It is no stretch of the imagination to assume that those of the median age of 15, male or female, have some adjustment problems. It is surprising, then, that 58% of the children living at home reacted cooperatively with the patient - typical comments were that they took it in stride, helpful and very good, perfect, and very understanding. This is a surprising statistic in view of the fact that one would not expect a high per cent of adolescent children to react so very favorably to their parent's problems. Adult offspring generally reacted favorably.

YOUR SPOUSE AND YOU AND YOUR SOCIAL LIFE

What were your major social, religious, and recreational activities before the operation?

_____

8. Four per cent of our laryngectomees said that they had no social, religious or recreational activities before the operation, while 85% had activities. Of those who did have these activities, only 41% of the 85% said that their life had remained unchanged, or in other words, 49% had changed their lives socially and recreationally.

If these have changed, in what ways?

9. This requires analysis because much of the change related to the fact that people could not swim, skin dive, or golf. Some had a loss of friends, one individual said he became very latent because nobody cared about him. Generally speaking, social life is substantially reduced.

If changes have occurred, have these caused you or your spouse unhappiness? _____

or greater happiness? _____

10. Forty per cent stated that changes, as a result of the laryngectomy operation, have caused them and their spouses unhappiness. Eleven per cent of our population stated that the changes had made an improvement in their lives and they have greater happiness now. We can only surmise with Gardner that some, at least a few, couples may be drawn closer together by the crises of the operations.

OTHERS

Did you receive important help (other than speech) from psychiatrists, your minister, priest,

other laryngectomees, organizations, etc.: _____

_____

11. Of the total group, 53% received help other than speech, leaving 38% who did not receive any general help. Of the 53% who did receive help, 43% of these received help from the Lost Chord Club and the New Voice Club. Typical sources of help other than those clubs mentioned are the American Cancer Society, other laryngectomees, people at work, and the church. Two people in our group of 155 sought help from a psychologist or a psychiatrist.

YOUR SPEECH

I use esophageal _____ Asai _____ or the artificial larynx _____ for speech.

How do you get along in the family group insofar as speech is concerned? _____

_____

12. Esophageal speech, 68%; Asai speech 3%; artificial larynx, 20%. Nine used both esophageal speech and the artificial larynx which makes these figures total over 100%. Seventy-nine per cent of our population said they got along well in the family group as far as speech was concerned.

Who first told you about new forms of speech? _____

Who was your teacher? your surgeon _____ a speech clinician _____

another laryngectomee _____ Were your lessons effectively presented? _____

How could they have been improved? _____

13. Only 53% of our population learned about new forms of speech from their surgeons. The rest learned from various sources such as: laryngectomees, American Cancer Society, and speech therapists. Of our population, 8% were taught how to speak by their surgeons, 63% by speech clinicians, and 24% by laryngectomees. The figure of under 100% is accounted for by those who felt they were essentially self taught. Some 62% of our population said their lessons were effectively presented, whereas 5% said the lessons were not. Sixty-two per cent effective pedegogy is too low. Comments for improvement were: more sessions, more time in the sessions, and better explanations.

How long did it take you to learn to speak? _____

Is your speech hesitant? _____ rather free and easy? _____

automatic? _____

14. The learning period for first speech ranges from immediately as in the Asai operation to three years. No median can be established from our information. Hesitant speech, 29%; free and easy, 51%; automatic, 34%. Nineteen of our subjects answered the comments both "free and easy" and "automatic," so apparently they felt this described the same kind of speech. At least 61% of our population had easy and free-flowing speech.

What did family members do to help or hinder your learning of speech? _____

_____

15. Approximately 59% of our population received positive reinforcement with members of their families, with 19% receiving negative responses or no response at all from their families. The actual comments are, of course, as important as the statistics. Comments in regard to positive attitudes report their families being: cooperative, good listeners, helpful in using tape recorders and walkie-talkies while practicing speech. Negative responses were that members of the family pushed too much, gave no attention, were impatient, and not understanding.

ADDITIONAL AND RELATED PROBLEMS

16. The data on additional and related problems is open-ended, therefore, it is really not possible nor appropriate to use statistics. However, some of the very common comments were about loss of sense of smell, depression, physical irritation, coughing and mucous, lack of ability to swim, thoughts of suicide, need to change occupations, or loss of employment, domestic quarrels, food and drug allergies, church not being helpful, and total disability for their type of employment.

Considering yourself and your family, would you have another total laryngectomy or would

you take the considerable risk of only radiation? _____

17. Sixty-nine per cent said they would have another total laryngectomy. Eleven per cent would have had radiation only, and this choice was stated with full knowledge of considerable risk as we stated on the questionnaire, "take the considerable risk." Nineteen per cent did not convert, 1% rejected the operation or radiation.

SPOUSE OF LARYNGECTOMEE

(One hundred and one responses have been received from spouses, fifteen of whom are male.)

BACKGROUND INFORMATION

Sex _____ (There were 86 females and 15 males.)

STATUS TODAY

Age last birthday _____ (The median age is 59 female with a range from 41 to 78. The median age is 61 male with a range from 40 to 87.)

Married _____(Ninety-six were married, one separated, with one widowed and two divorced.)
Divorced_____
Separated_____
Widowed_____

Number in family living at home _____ (Median is two, with a range from one to five.)

Number under age of 18 ____(Only fourteen families had from one to two children under 18.)

STATUS AT TIME OF SPOUSE'S LARYNGECTOMY

Age last birthday _____(The median age is 52 female with a range from 29 to 72.)
(The median age is 51 male with a range from 37 to 74.)

Number in family living at home _____(Twenty-two families had one to three children, in other words,

Number under age of 18 _____

LAST GRADE COMPLETED Circle one:

Grade School	High School	College	Post-Graduate	Academic degree(s)
1 2 3 4 5 6 7 8	1 2 3 4	1 2 3 4	1 2 3 4	earned (if any)
				_____

(The answers ranged from Grade Six through third year postgraduate. Sixty-three per cent were at least high school graduates.)

FAMILY INCOME AT TIME OF SPOUSE'S LARYNGECTOMY Check one:

Under $5,000 per year
$5,000 to $9,999 per year
$10,000 to $14,999 per year
$15,000 or over

(Twenty-one per cent reported having incomes under $5,000; Thirty-five per cent reported incomes from $5,000 to $9,999; Twenty-six per cent reported incomes from $10,000 to $14,999; Seventeen per cent reported incomes over $15,000.)

Note: Some spouses had been widowed; we used them anyway.

GENERAL

Sex _____ Age _____ Married _____ Size of family living at home _____

Employed _____ if so, type of position _____

Retired _____ Housewife _____

1. Responses indicated that thirty-two per cent were employed, with sixty-eight per cent retired and/or housewives.

OPERATION

How long ago was your spouse's operation? _____

2. The answers range from seventeen years to five months with the median being four years.

Were you present when the diagnosis of cancer was made to your spouse? _____

3. Seventy-nine per cent said yes, with twenty-one per cent saying no.

What was your reaction to the surgeon's presentation of the information? _____

4. Out of our population of 101, only 13 appeared to be optimistic in general. There was shock, heartbreak, worry, fright. One couple was shocked because of being in the process of adopting a child.

What was your spouse's reaction? _____

5. Most spouses were depressed, two wanted to die. Fifteen (or 15%) were optimistic.

Did you receive satisfactory counseling at this time? _____

6. Satisfactory counseling was received by seventy-six per cent of our population.

How might this counseling have been improved? _____

7. Some spouses commented that more information would have been useful as to what to expect after and during the operation, and many would have liked to have had the surgeon talk to them, as well as their spouses, to help them anticipate some of the coming frustration they would experience.

What did you do to support and help your spouse's attitudes? _____

8. Generally speaking, the spouses gave encouragement, love, understanding. Some kept the business going, some encouraged speech by talking and reading and some also went to speech classes with the laryngectomees. One woman accused her husband of feeling sorry for himself. She felt that her criticism helped him.

Are you hard-of-hearing? _____

9. Ninety per cent said no, while ten per cent said yes. It is obvious that in this age group more than ten per cent of the spouses had a hearing loss significant in limiting the reception of esophageal speech.

Did you try to help with speech? _____

10. Those that said they tried to help numbered seventy-one per cent of our sample.

Did you seek or continue employment? _____

11. Forty per cent said yes.

Is your spouse retired? _____ Did he or she go back to the former job? _____

or a new job. _____

12. Forty per cent said that their spouses were retired. Of those not retired, sixty-six per cent went back to the former job. Of those who were still employed, twenty-two per cent took new jobs.

What, if any, home situations proved difficult? _____

13. Thirty-seven per cent of the spouses said there were no home problems. Some interesting answers were that there was difficulty in: communication, hard-of-hearing problems, finances, suicidal tendencies, nervous strain, speaking and eating problems.

Has anything related to the stoma (appearance, noise, coughing, etc.) been disturbing to you?

_____ If so, in what ways? _____

14. Forty-five per cent of our population felt that matters relating to the stoma were disturbing to them. The coughing and presence of mucous was a well-nigh universal complaint from the spouses.

As a result of the operation did you become more or less dominant in the family situation?

_____ Please explain: _____

15. Dominance on the part of the spouses increased for twenty-four per cent. For seventy-two per cent there was no reported change. Four per cent reported that they had less dominance.

Did your major social, religious, and recreational activities change? _____

If changed, in what ways? _____

16. Thirty-seven per cent admitted to a change. Sixty-three per cent said there was no change in activities. Generally speaking, those who had fewer activities sought small social groups or isolation. One woman felt sorry because her husband could no longer swim.

Aside from your spouse, who helped you most with your problems? _____

17. Twenty-five per cent of the spouses did not get help from anyone else. Of the seventy-five per cent who did get some help, it was mentioned that it came from: physicians, relatives, laryngectomees, wives of laryngectomees, employers of a laryngectomee, priests, and speech therapists.

ADDITIONAL AND RELATED PROBLEMS

React to any of the following or other problems which may apply to you. Depression (self or others), heart condition, hearing loss, your boss, domestic quarrels, food problems, churches or clubs, jealousy, stoma (care, noise, etc.), work, retirement, etc.: _____

_____

18. These reactions were highly varied and some appear worthy of mentioning at this time: felt bad, can't swim, jealousl on the part of one wife (apparently of nurses and those who helped her husband more than she could), depression, heartbreak, annoyance of bibs around the house, laundering of stoma napkins, drinking, difficult to cook for, difficulty when trying to get mucous from stoma, financial domestic quarrels, frustration because spouse cannot help more.

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Discussion

SNIDECOR: My subject this morning was the family of the laryngectomee, but I'd like to stress something else very briefly because the question was asked and it needs to be answered right now. In learning to teach a laryngectomee to talk, you have a direct learning situation and you'd better know how to handle it directly and effectively with the right kinds of reinforcement and cancellation. If you don't, you're not going to have a speaker and you're not going to have rehabilitation; for, if this client cannot begin to speak, his whole vocational and family relationships are inadequate. The battle is lost before it began. I don't want to oversimplify nor do I wish to have you feel there is something very esoteric about the teaching process and that only a few of us know how to teach for this is not true. But then again there are many people who think they know something about it and don't. Teaching esophageal speech is a very direct and positive kind of thing; success breeds success, and I'll just give you one example of how I would approach it with a laryngectomee. I want to see him as many as three times the first day. I'm like Willy Diedrick, I want this client to phonate before the sun sets if he can do so without stress. And if he phonates the first time around, the firt hour, fine. He goes on his way, and he goes home, and I hope when his wife says, "How are you doing?" He says, "Okay" or something like that. If at the second appointment he phonates, fine, then we don't see him later that day. If he phonates at the third lesson then his day is made and so is mine. In teaching laryngectomees you're laying it on the line. Remember you have got about a seventy per cent chance of teaching this person how to talk if he's under sixty-five years of age; the odds are with you—they aren't perfect—but they are known so you can look over the years and know whether you're a skilled clinician or not. Nobody has to tell you, you can check your own rate of success. Now let's get on with the family problem.

BANGS: If we're going to be working with the laryngectomee and his or her spouse, then I guess we can assume that people are helpable at a time of crisis. After listening to your statistics it seems that there are two real crises in the life of the laryngectomee and his family. One is the pre-operative crisis, or learning about the problem, and the other is the post-operative crisis. I am not clear regarding your statistics. Does the speech pathologist do the best job in conferencing pre-operatively or post-operatively?

SNIDECOR: That was pre-op, at least in the case I made. A meeting before the operation doesn't have the purpose of teaching speech, but orients the client and may cancel some of the fears prevailing at that moment.

BANGS: All right. I would like to know, then, what the speech pathologist does when he or she meets with the laryngectomee for the first time. Does she meet with him, or with him and his spouse? Does the speech pathologist start out with a question such as, "Well, how do you feel about it? Tell me how you feel about it," or a question such as, "Let me help you anticipate what you will be like post-operatively." Or, does he start out with something like, "What questions do you have?" or "How do you think I can help you"? Give us some specific idea as to how we get started with our first session.

SNIDECOR: Before I even attempt to answer this, I'd like to say that Jack Bangs, (who is Tina's husband, as many of you know) Lierle, and Strother, produced the first article on the laryngectomized individual generally available to speech pathologists. It was published in *Journal of Speech and Hearing Disorders* in about 1946. For all of my being talkative when I get in a situation such as we have here this afternoon, I usually am not talkative in the counseling situation. Now, mind you, our candidate is in the hospital, not yet operated, his voice is hoarse and breathy, but he can talk, and so I'm inclined to let him lead off, except to say, "I'm a speech teacher as you know. Somebody's probably told you that you can learn to talk either with your own voice or with an artificial larynx after your operation. Now, what can I tell you about it?" An interesting case I had sometime ago was a man who had a strange look on his face. I said there must be something I haven't answered and he said, "Yes, you haven't. After I get through the operation can I keep on drinking?" He was a very heavy drinker and I said, "Well, this is between you and your

physician and insofar as the ability to swallow is concerned, you're still going to have it." he was a very quiet guy, a custodian, and he didn't have to talk, so he wrote, but an interesting thing happened. I had obtained, for a Chicano client, a sweet old fellow of 80 years, an artificial larynx because that's what he wanted. He didn't want to learn esophageal speech. He wanted a machine and he got it and used it. Well, my first friend, from the hospital, who never learned esophageal speech, met a girl and wanted to take her on a weekend trip and he couldn't talk to her so he tried to con the Chicano out of the artificial larynx and the Chicano called me up and said, "Should I loan it to him?" Now that's a hell of a spot to be in, isn't it? Are you for or against sin? I answered in a very practical way for the Chicano. I said, "This man has a reputation for drinking heavily and he might break your 'machina.' My suggestion is that you keep it." Now, I cannot tell you whether our first man ever got away for the weekend or not, I just don't know. But you see, all he wanted to know was that he could keep on drinking. He didn't want to know whether he could speak again. This actually happened, it's not something you can generalize on, but it seems to me that people in trouble are full of questions. You answer questions the way they give them to you, and then you go ahead from there if you think you should fill in, and sometimes you need to. Now that's the way I would do it. I don't go in with anything very structured. I have an artificial larynx in my pocket and an available playback so I can play samples of esophageal speech, or perhaps I say a few words in esophageal speech myself. So I don't structure, I play it by ear. This man is in trouble. I want to soothe him, answer his questions and honestly motivate him.

SHERMAN: I have a couple of questions I'd like to ask about post-operative treatment. You talked about training the laryngectomee to phonate for the first time, and then sending him home. What I'm really curious about, particularly with the emphasis on family therapy, is what do you tell the family to do? Or do you tell them anything? Do you give them tasks on which to train the patient? Do you tell them to respond differentially to his speech in any form or another? I'm really interested in a specific outline of a programming procedure by which a laryngectomee is taught to speak and how this involves family members?

SNIDECOR: I consider this a very important question, but there is no quick answer. Usually you have to give a lot of general information. Surgeons, generally speaking, are not highly verbal people so you may have a bit of counseling on your hands. I had a repeated operation last summer, and I had a very strange feeling across my gut and on the surgeon's second or third hospital visit I said, "You know, I have a feeling across here which is very disturbing to me." "Oh," he said, "Yes, I did the operation a different way. I forgot to tell you that you were going to have this sensation for about six months." Good surgeon, but hell of a communicator! So, I think, one of the things we have to do is say that speech is going to take quite a while. If it comes quickly, so much the better, but generally speaking, it's going to take a while, perhaps as long as four or five months. If he doesn't learn, we'll teach him how to use an artificial larynx. Delay may be normal. Like my twinge here was normal, but I didn't know it. People read a lot of junk in *Readers' Digest* or *Good Housekeeping*, or someplace like that about the magic of this or that. Now, I'm old enough to know there's damn little magic around anywhere, and most of you will agree. We must build realistic views about speech and then we have to say simple little things like this to the family members: "Now, when he trys to say something turn the television off, don't have the radio going, don't be riding in a car or plane or bus. Let's have it quiet." Simple? Obvious? But just terribly important. And then encourage positive yet patient responses on the part of the children, the wife, *et cetera.* and recall what I said about the hearing loss. When two elderly people sit down at the table to eat, they should sit close together. One particular couple made quite an affair of dinner each evening. They had a candle on the table, a highball or martini before dinner, and sat at the ends of the table. She said, "I can't hear him." I explained the inverse square law, I said, "You sit here close by, he sits here, put the candle here." She reported, "Now I can hear him." So now they were separated by eighteen inches instead of three or four feet, and it made all the difference. These are the sorts of things you've to keep working on simply, directly, and thoughtfully. Take this idea of not talking in a car. Esophageals are never going to be as loud as they were so don't speak where it will frustrate them. We also have to be patient about speed. A hundred and twenty words a minute is a median figure for good esophageal speakers. That's a rate at which a secretary, a rather good one, takes dictation, but far below the normal rate of speech. That's a good speaker! You're going to be impatient? Well, you'd better not be. You've got to know the standards, and everybody in the family and the boss have to know the standards. You have the responsibility, so far as I am concerned, to talk to the boss if this will help. And I would prefer to take him to lunch than just walk into his office. I want him to know that his employee is just as good as he was before, and that I am truly concerned with the employee's welfare.

In general, you've got to be flexible. People are reinforced in different ways. In another study the wife said, "He didn't talk 'til I got on his back. He didn't talk 'til I pushed him." I'm perfectly willing to believe her but, generally speaking, people react better to the carrot than the whip.

Over and over again, wives state that they become more dominant after the male has become operated; it's easy. He can't holler at her, he can't say this, that, and the other thing quickly and loudly so it is easy for the wife to become more dominant. She may be ashamed of it, she may know that it's cracking up her marriage, but she'll do it, she'll admit it, it's in this study and it's common behavior. You as a counselor may be able to help.

Dr. Sherman, I have taken quite a few words to say that you can't really formulate a clear cut program for families. They differ too much. Teaching of esophageal speech, yes,–families, no.

FLOWER: Jack, to pursue the last question, are there specific speech-like productions, let's say buccal noise, or whatever that you would have a family discourage or monitor?

SNIDECOR: In general, I'd give the wife a notion of what good beginning esophageal speech is like and let her reinforce this. Sometimes, speech which sounds poor at the time is the beginning of good speech. Now, so far as buccal speech is concerned, it's poor on all accounts; and so there is one thing that I will tell any member of the family–don't let him whisper–don't let him whisper. Let him write, let him use the artificial larynx–but don't let him whisper or use buccal speech. This is very simple and absolute and depend on it: if he becomes a whisperer, he's had it. Almost never can we teach esophageal speech to a person who has fixed the whisper habit or uses buccal speech. And further, such sounds are just no good from the point of view of communication, just no good at all. Positive reinforcement for effective speech, from the family, by all means, if this is the kind of thing that is going to stimulate him, but no conning! There are some people, nurses for example, who say too optimistically, "Oh, you're going to learn how to talk, everything's going to be all right." Well, this laryngectomee has tubes up his nose, he's lying there feeling sorry for himself with good reason, and I don't care how brave he is, he knows that things are never going to be quite the same again. You know and he knows that some things will never be perfect again, so let's face this, let's tell these nurses and social workers to be a little more realistic, and this goes for the wife, too. If she now babies her husband and this happens many times, and with good intentions, he becomes resentful. This is a new kind of activity which is patronizing and makes many people angry. Who wants to be patronized? You know, most of us, the people in this group, are making a decent kind of a living someplace with a sense of pride about what we do. You don't want to go to a hospital and have a nurse or a physician or a speech therapist or a wife or anybody patronize you. You want them to teach you, love you; but you don't want to be patronized or conned or pitied.

ALLMOND: For somebody who is interested in family things, your presentation is kind of a treasure trove. One thing I'm particularily lighting on is your feeling that the speech therapist somehow needs to be appraised of and get into the family system and know how the family environment is reacting to the individual who has lost his speech. You know, the social worker's traditional home visit, which is a beautiful tool, is being revitalized in other disciplines; and particularily some of us in family therapy now are going out and having an evening meal with the family at which we get lots of things besides indigestion. That might be a very elegant way to get into the kinds of things you're talking about: to see physically how the home is set up for communication and emotionally how is it set up as well. I'm wondering if this has been done or if you have any experience with it.

SNIDECOR: Well, certainly at the beginning stages, I would be inclined to work another way with the family but not in the home. But I can tell you something that happens. Those of you who have worked with laryngectomees know this: if you teach your client how to talk, he's likely to visit your home. If he's a farmer you might get some vegetables; if he is a business man you may get a damn good bottle of whiskey for Christmas; if he's retired, and buys a new trailer or a camper, he and his wife will drop by, because they want to show it to you. I'll tell you a story about a retired couple because I think it's especially interesting. They had a good marriage built on give-and-take, a certain amount of scrappiness. Irish people, lovely people, but they scrapped a lot. And they stopped by to show us a new camper they had purchased. They knew that we were interested in camping and fishing, so they dropped by to show it to us. We were having coffee and cake and the woman made a statement–a very strong statement and the husband turned to her and said sharply, "Mary, it wasn't like that at all. It wasn't like that at all, Mary." and she turned to me and she said, "Thank God, Bob can talk again." The husband with his new esophageal speech was reacting in a very strong and customary way, so everything was all right again.

In the home or in the office I do want to talk with members of the family. Further, I'd like to suggest to a lot of you, including people in rehabilitation, that some office hours should extend beyond 5:00, or be scheduled in the evening, or on Saturday, or you're not going to see all of the family, the boss, and the other important people in the picture. Most important is the client who may be worried about his job and reluctant to ask for time off when he already has had a long period of sick leave.

FLOWER: Jack, there was one finding in your questionnaire that was different than I would have predicted. In general, the pre-operative and post-operative counseling by other laryngectomees faired better than I would have anticipated. I have great concern about some of the instances I have seen where laryngectomees make a career of working out some of their own unresolved problems. They tend to make many generalizations around the theme that because you face this situation, you have the same problems I do. I'm wondering if our own lack of skill and sometimes lack of interest in working with this population hasn't led us to discharge our responsibilities to people that maybe aren't too well-equipped to handle it. I think that other laryngectomees may have a place in the total rehabilitation picture. But frequently we turn over to laryngectomees as lay-teachers, or lay-counselors, too much responsibility, particularly in working with the entire family.

SNIDECOR: I couldn't agree more . I know a man who is the very opposite. I'm sure he's still alive because he'll probably never die. His name is Shorty Poor. He lives down in Del Mar, California. If you're down there drop in and say I said you ought to meet him. He's this kind of a person—around the house, he leaves his shirt open so the stoma shows, and some kids came by and one of them said, "Shorty, what happened to your neck?" He said, "I'll tell you, boys, you know I raised cattle up in Montana, some cattle rustlers shot a hole in my neck." So they went home and they told the story to their parents and, you know, the parents weren't that amused. But I asked Shorty once, "Do you ever go to Lost Chord clubs, Lost Voice Clubs?" He said, "What the hell would I want to belong to a club for if they're all held together by misery?" Let me hasten to emphasize that I believe these clubs are great until a person learns to speak, and as a place to go to help others, but I think they ought to stop there and people ought to get back into their former groups with a five card stud game, the church, whatever their hangup is. In brief, most laryngectomees as counselors, have limitations, and yet we have a few very good counselor-laryngectomees in Southern California. I'm not going to distort my data, but I'm going to state it in writing with great caution because generally speaking a laryngectomee is not a good speech teacher for at least two reasons. One is overcompensation and the other is that he's going to tell some learner how to talk and the teacher may be fifty years of age and he is an inhaler and this client is seventy-five and if he's going to learn, he's likely to do so as a plosive injector, but he's unlikely to learn by the inhalation method. So even the methodology may be poor. Generally speaking, I'm for professional instruction. I was reporting what the study said. Now I'll tell you what I think, and I think the laryngectomee should not usually be the person to visit in the hospital, unless perhaps he comes as an adjunct perhaps with me, so that I can say, "I want you to meet Bill here, he's an old friend, he's been through this." Maybe that's the ideal way to do it, I'm not sure. But I don't send the male to talk to the female, ever.

BANGS: I have a question for you. I believe you stated that the spouse usually has difficulty in accepting such things as wheezing, coughing, the annoyance of the bibs around the house and having to launder them. All of these are petty, picky little things which can keep mounting and mounting. How do you handle this? Do you bring the spouses in as a group and talk about it, or do you let them talk about it? What is your procedure?

SNIDECOR: Well, first of all we don't deal with groups here—this is not a large community and much of my research has been done outside of Santa Barbara, as you know; but we still have a good many come here, and we have over the years. This is a problem, and I try to be pretty direct about it. I try to tell the laryngectomee a good deal because he's the one who can help his wife. And let me suggest this, for physicians present in particular, a lot of the wheezing comes from the fact that for laryngectomees, airborne allergies are now intensified. This is very important. A lot of these people should go see someone who specializes in allergies, immunologists, *et cetera*, so they can experience, if possible, some relief from any allergenic factors. Now there's another little trick and it's really very simple—a laryngectomee talking: "I get all clogged up and I lean over the side of the bed or a chair and gravity helps me get rid of the stuff." I would not, if I were a laryngectomee, knowing what I know, ever expect my wife to launder a bib. There are ways to make them so cheaply that they can be discarded, or I'd launder them myself. I would not ask my wife to do it, and I have suggested to more than one laryngectomee, "You know how to run the washing machine. Let these things stack up, put them in a bag in the garage until you have two or three

dozen of them, run them through the washing machine yourself." Important? Yes, it's a small thing, but it could make a big difference.

Eating garlic and onions can be bad. The wife's nose may be at stoma level and get obnoxious breath standing up, or lying down. This could be just pretty damn revolting unless the wife shares the same diet. So laryngectomees should be told something about these kinds of things, you see, and be helped in getting over all kinds of big humps with small pieces of advice.

SHERMAN: The kinds of advice you've given to laryngectomees seem very, very reasonable. But, I mildly object to your idea of "playing it by ear" for each laryngectomy case. You mentioned, for example, that physicians often don't know that laryngectomees suffer from pollen irritations. You also mentioned that laryngectomees, because of the reduced loudness of their voices, should be told to be closer to another person when they want to talk with them and should not have the television playing when they talk and should not talk in an automobile. Should these very important bits of information be left to a speech therapist to "play by ear"? Shouldn't some kind of systematic program be spelled out for a laryngectomee to tell him about the kinds of physical constraints that have to be put on his environment and what he can do to better handle the problem? Also, you mentioned that the family had to be taught what to expect from a laryngectomee - what kind of speech was appropriate, what kind of speech was good. Do you actually, or would you, advocate training them to do this? That is, playing tape recordings to them to let them know how fast a laryngectomee can talk, what kinds of speech forms they should expect and further teaching them to provide, let us say, social consequences for the laryngectomee coming closer and closer to these forms?

SNIDECOR: I think these are very good questions, and I'll take the first one first if I understand it correctly and if I don't, tell me. I used the expression "play by ear" and I say this when I am talking to trained people. In other words, I'm talking to good musicians, you know, who can really play by ear. And I'm not joking, I'm saying this very seriously because if you don't know what the hell you're doing, you're not going to be able to play it by ear. And what I try to avoid, as I know you do, sir, is putting unnecessary things in the salad. You know, you can give people a lot of information which they will misuse. So this is why I try to limit, and this is what I mean by playing by ear. You and I have a little different connotation of what I mean here. So, you don't go telling people something they don't need because that something may be very discouraging to them. And it may actually be bad from the sheer conditioning viewpoint. Now if I were to tell a client, "Look, you'll learn to talk in about four months," and this man learns to talk in four days and some do, why should I have said to him, "Maybe you'll learn to talk in four months"? If he doesn't learn in four days or four weeks then I tell him, "Well, it takes a lot of people four months," but I'm not going to tell him this right away. Not at all. And by the way, I have answered a lot of these questions about programming in my book on the subject. Now, as regards structuring for the family, there is a variety of suggestions that might help. Now, any student who has been through my course in alaryngeal speech, and a number of you have, will know the kind of structure that you might use if you had to use the whole thing. Now, it's pretty obvious that with a younger couple, thirty-seven years of age, you don't have to talk about sitting close together, you don't have to talk about it because they can still hear each other. Because a man is fully employed, every minute has to count because you're working hard and he is too. You can't cover all the territory so you have to really get in where it counts. For efficiency I may use recordings, but I seldom play a recording right away unless perhaps it's in the hospital; and then I never pick the best example, just a passable one. When one records and plays back a beginning client it's almost like playing the first recording of a cerebral palsied child to that child. You must be pretty careful or the vocal image on the recording may be quite devastating—quite demoralizing. But I do try to give positive examples, and I try to explain what the person is working for and how he can get air down and up. It is easier to get air down than up, at least at first, so there probably isn't a laryngectomee in the world who has not been seriously disturbed by flatus though much of it is, of course, air. You just go around pooping all over the place for days on end, and some people never get over it. And if you want to be the life of that kind of a party, I can teach you how. It's very simple. You relax the top of the esophagus and you charge air. Now most normal speakers can't get the air back up but almost everybody can get it down, and then it's got to go sompleace, either up or down. Did you hear me charging air (over microphone)? It's going down here (points). I'll take it out the top. It is easy to auditorily monitor a charge, you can take a little plastic or aluminum funnel and a piece of ordinary rubber or plastic tubing, preferably a little larger than enema tubing and put in on the small end of the funnel and put the other end in the client's ear and place the larger end on your throat and say, "Now do you hear the air go down?" He hears it. Now he can

learn to duplicate the sound. Give him the funnel to take home—they cost very little. However, emphasize that he must immediately get the air up. Charles Berlin has talked about this very effectively. The latent period eventually should be reduced to half a second. Berlin is a very good research worker; that is his findings are essentially the same as mine. The latent period in his study and mine worked out to be a median of half a second or so for successful esophageal speech. Berlin points out how important the reduction of this latent period is, but you can't have a latent period if you can't get the air down; so this little funnel which anyone can use is very useful as monitor and reinforcer. When he once hears the air go down he feels great because he's made the first step and proven to himself that he can do it.

I wrote an article rather badly years ago because I was impatient with the concept that most ills are psychological and must be cured by therapy in depth. I'll give you the title of it but not the reference because I didn't write it the way it should have been written at all odds. The title of the article was "The Skills are Adjustive." And I believe to this day that the skills are adjustive and esophageal speech is one area where, believe me, they are. Most of what we do with the family of the laryngectomee is designed to cushion his failures and reinforce his successes in speech. Gardiner pointed out so very clearly that the very fact of having a family makes for success in re-learning speech communication. A knowledgeable, patient, sympathetic, and positively stimulating family will obviously accelerate and implement such success.

Family Influences on Stuttering and Stuttering Therapy

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There is general acceptance of the idea that environmental factors are of great significance in the development of speech. Among others Mowrer (1952) has described the way in which identification – positive feelings between child and parent – influence the early acquisition of oral language. Words are repeated if they have been associated with positive reinforcement. Throughout the literature on human behavior, the social nature of speech is stressed. On the other hand, it is true that genetic endowment and maturation set the pace. We will no doubt refer to the contributions of these latter factors during the symposium, but the influence of the environment, and the person's family in particular, is our main concern.

Most of those who have studied stuttering clinically and experimentally, regardless of specific point of view, have concluded that just as environmental factors are crucial in the acquisition of language and speech in general, it is also necessary to include environmental influences in an explanation of the onset and development of stuttering. Therefore, modification of the reactions of those persons, family and others, in a child's environment is important in the prevention of stuttering, stemming the tide of development during an early stage, or in working directly with a child or adult with a stuttering problem.

I think these remarks indicate that my presentation should include a discussion of two topics: (1) Environmental conditions that have been related to the onset and development of stuttering, and (2) The methods used by those of us who deal with this problem to modify the responses of the environment and hopefully reduce or eliminate a subject's stuttering behavior. Obviously, the behavior of the family occupies a key position in both of these areas.

ENVIRONMENTAL CONDITIONS THAT HAVE BEEN RELATED TO THE ONSET AND DEVELOPMENT OF STUTTERING

Although most stuttering theorists, even those who have referred to the possibility of constitutional factors, have considered environmental influences as important in the acquisition of stuttering, it was Johnson who stressed that the crucial differences between a child who becomes a stutterer and one who does not is found in the parents' and others' reactions. In Johnson's analysis, Davis' data (1939) and that of Branscom, Hughes, and Oxtoby, (1955) showing that all children are disfluent, those studied showing a wide range of variation, was cited as proving that statistically speaking disfluency is normal. During and following the time these studies of disfluency in the speech of children were being done, three major studies of the onset and development of stuttering were conducted (Johnson, 1942; Darley, 1955; Johnson, 1959) at the University of Iowa.

In all these investigations, a total of two hundred and forty-six children judged by their parents to be stutterers and their parents (the experimental group), and an equal number of children judged by their parents to be nonstutterers and their parents (the control group), were studied. Research data were compiled from carefully planned interviews, clinical observations, and test procedure. The experimental group children were seen, on the average, two and one half years after the perceived onset of stuttering. In general, 85 to 90% of the parents agreed that the speech behavior originally diagnosed as stuttering was the effortless, brief repetition of syllables, whole words, or phrases. The studies of normal fluency development and the onset of stuttering led Johnson to propose and advocate that stuttering was a diagnostic problem, i.e. it was not a problem until after a listener evaluated normal disfluency as stuttering and began to

react to it. A second step in the process of normal disfluent speech becoming a problem was the internalization of the parents' evaluation by the child. Significantly, Johnson (1959) pointed out that parents were not to blame – that they were only reflecting a cultural attitude toward the fluency of speech. Furthermore, the reason that stuttering tended to run in families was that a particular sensitivity about disfluency was present in the families of stutterers. In addition to the previously cited finding that the parents of stuttering children had more demanding expectations regarding the fluency of their children, the onset studies and related studies of parental attitude (Darley, 1955; Johnson, 1959) appeared to show that the stuttering group's parents, especially the mothers, were more perfectionistic and striving, and less satisfied with themselves and their children. These latter findings, along with similar reports on the parents of stuttering children by Glasner (1949) and Moncur (1952), Johnson reasoned, added to a picture of sensitive, hyperreactive parents. In the last of the three onset and development studies (Johnson, 1959), findings relative to type of disfluency showed that sound or syllable repetition and prolongation of sounds occurred in significantly more of the stuttering children; whereas, phrase repetition, silent intervals, and interjections such as "well" and "and uh" occurred more often in the non-stuttering children. These results, and findings from listener reaction studies, that sound and syllable repetitions are more likely to be labeled as stuttering, seem to have influenced Johnson (1959) to hypothesize in some of his last writing that stuttering was the result of a general interaction between three major variables: (1) the listener's sensitivity to the child's disfluency, (2) the child's degree of disfluency, and (3) the child's sensitivity to his own disfluency and his sensitivity to his listener's evaluations.

Others such as Sheehan (1958, 1968) have stressed the child's general feelings about himself in relating to his environment in tracing the beginning of stuttering and in showing how the behavior is perpetuated. Sheehan believes that repetitions and prolongations in speech represent approach-avoidance conflict (Miller 1944, Dollard and Miller 1950) which can have its origin on one of five levels and, in addition, can be generalized from one of these levels to another. These levels of conflict are: (1) Ego protective, i.e. how the child feels about himself, (2) Relationship, i.e. acceptance or rejection of certain interpersonal relationships, (3) Emotional loading of speech (expressing or inhibiting feelings), (4) Situation speech conflict, and (5) Word level conflict. Disfluent or stuttering behaviors are increased if conflicts are not reduced. Moreover, fear and conflict reduction which occurs simultaneously with and immediately following stuttering reinforces the behavior. Thus, approach-avoidance behavior causes stuttering, and fear reduction at the moment in time that the stuttering occurs reinforces it. In this connection, Wischner (1950), in relating Johnson's diagnosogenic theory to learning theory concepts, referred to the way in which behavior designed to avoid noxious environmental reactions to disfluency was reinforced by monetary anxiety reduction.

Wyatt's (1969) multidisciplinary approach to the study of individual children who developed stuttering has led to her interpretation of stuttering as a loss of parental love, corrective feedback, or modeling of appropriate language forms during the development of language through the pre-symbolic (babbling), symbolic (naming, words), and relational (phrases, sentences) stages. The loss of corrective feedback is most detrimental when the child is moving from one stage of language development to the next. This causes compulsive repetition of an earlier developmental form, e.g. initial sounds and syllables, which are least characteristic of later normal development, but which are characteristic of early speech development.

Skinner's (1953) behavioral principles have been stressed by Shames and Sherrick (1963) in postulating effects of the environment producing stuttering. Disfluency and stuttering are considered operant responses that are similar and continuous. Disfluency results from, among other things, maturational factors and the stress the child experiences in communication. Aversive stimuli from a listener, which if response contingent would be expected to reduce disfluency, do not, since social reactions are not that precise. In addition, the listener, the situation, and other aspects of the stimulus-complex present become aversive through association and thus evoke more disfluency. The continuation of this process degenerates the speech response into what we call stuttering. The child feels punished for a new form of stuttering response, but at the same time there is negative reinforcement because the new form terminates the preceding aversive form. If the stuttering gains attention, and this may be very important in some cases, this positive reinforcement increases the behavior. Parental and sound negative and positive reinforcers are presented on a complex intermittant schedule; thus explaining what every clinician knows who tries to analyze the reinforcing factors operating in a stuttering child's environment.

Brutten and Shoemaker's recent theoretical explanation (1967) of stuttering, in which reference is made to individual differences in autonomic reactivity and conditionability, also emphasizes the role of the environment. Their concept is that fluency, the predominant

characteristic of normal speech, is disrupted by learned classically conditioned emotionality which increases fluency failures (repetitions and prolongations). Unadaptive instrumental behavior or operant responses which reduce emotional responses are reinforced, adding to the complexity of failure in fluency.

Whereas, Shames and Sherrick (1963) begin with the high operant level of disfluency and consider the shaping of this behavior, Brutten and Shoemaker (1967) are also interested in the factors that occasion disruptions in fluency – fluency failure as they refer to it.

Studies of the incidence of stuttering in different cultures and socio-economic groups has additional implications for our evaluation of environmental factors. Surveys of Indian tribes in America and other societies (Snidecor, 1947; Lemert, 1953, 1962; Stewart, 1960) have provided strong evidence that there is more stuttering in competitive, status-conscious societies in which higher standards of behavior are the rule. For example, Lemert (1962) inferred that the low incidence of stuttering in Polynesian societies and the comparatively high incidence in Japan was due to the differences in pressures to achieve and conform. Morgenstern (1956) concluded that socioeconomic upward mobility was pressure that increased stuttering in some occupational classes.

In summary, environmental factors, reflecting either broader cultural patterns or the specific adjustment of the parents – or perhaps a combination of the two – are considered to be significant determinants of stuttering. Consequently, our clinical evaluations include a thorough study of parental management, other family reactions, educational factors – and in the case of adults, the wife's attitude and the person's interactions with co-workers.

As I conclude this review of environmental factors, including parental reactions, that have been related to the development of stuttering, and before we discuss therapy, I would like to say a few things briefly about my present point of view. Many cases of stuttering may involve social learning only (social learning being defined as behavior influenced by the environment), but some characteristics of the subject, individual differences which may be constitutional, can also occasion more disfluency and possibly qualitatively different types of disfluency. Disruptions in the flow of speech may be occasioned by subtle expressive language deficits or minimal problems of motor patterning for the production of speech. Moreover, I believe that the prevention of stuttering or the management of stuttering in incipient or advanced stages requires a differential therapy which is based on a careful differential case history and evaluation.

Stuttering Therapy and the Modification of Environmental Responses

As we know, the way in which the family and other environmental influences are involved in therapy differs in terms of two major variables: (1) the developmental stage of the problem and (2) the chronological age of the subject. In the discussion to follow I will consider differences in approach with reference to these two variables.

In the young child (usually three to six years of age) speech clinicians have attempted to minimize the development of anxiety (unpleasant expectation) about speech as a learned source of drive. If you prefer the terminology of operant conditioning, clinicians have attempted to prevent speech, or to be more exact, disfluency in speech, from becoming a discriminated aversive stimulus. As we enter into the process of development, we hope to accomplish this by working with stimulus events (variables of the subject and environment) which occasion disfluency and parental or others' reaction which may, by learning, become associated with speaking. Said another way, we want to deal with all of the sources of negative emotion or anxiety which result in approach-avoidance conflict which is reflected in speech. Said yet another way, we want to minimize the operant rate of disfluency and the shaping of a "normal" response into "abnormal" ones. Learning theory helps us understand what a complicated situation of stimulus complexes, responses, and reinforcements with which we are dealing. Our students are helped to be more realistic and, in addition, these various learning paradigms serve as a basis for analyzing and treating the problem.

Contact with the family of these young children is usually through parent counseling. After initial evaluation, a judgment is made as to whether the child should be seen for indirect speech and language activity therapy as a part of the therapy process. One advantage of seeing the child, with reference to our present topic, is that we can follow variations in the child's fluency and other behavioral patterns as the parents report to us. Another advantage is that we can model types of behavior that we want the parents to use in their interaction with the child.

Specialists are agreed that parent counseling is essential. Even if we visit the home situation to view for ourselves the parent-child or child-child relationships, we still need to rely on the verbal reports of the parents to know what stimulus conditions evoke negative emotion (Brutten and Shoemaker, 1967) or what stimulus conditions control disfluent or stuttering behavior (Shames and Sherrick, 1963). In addition, the parents have their

thoughts which are related to various emotions or which cue certain emotions. One of these we commonly label as guilt. They need an experience which is more permissive and which rewards expression of ideas and feelings about their behavior and that of their child. They need information about speech development and how stuttering might develop. New verbal labels (Dollard and Miller, 1950) can be supplied which help the parents to become less general and more discriminating in the description of their behavior and that of the child. Finally, the mother, father, and others associated with the child need to understand what we are doing in therapy and how they can support our work.

As an illustration I will tell you about a youngster, Jim, and his parents – and his grandparents! Jim was brought to the clinic for evaluation when he was 3 years 11 months old. The mother and father said that he stuttered. The condition was worse when Jim was "nervous or under pressure." Touching the main point briefly, birth was by high forceps, motor development was a little slow, he spoke his first words at 2½ years, and used word combinations at 3½ years. Both parents agreed that the boy "stuttered" from the time he began to talk. The mother said that the first few words Jim said were stuttered and that his grandfather thought this was funny and teased him. When asked what they had done to help their son, the mother said that she was trying to be more patient and give him more love and understanding. She also said she was teaching him to read from the Chicago Tribune series of articles on teaching pre-school children to read. Briefly, the results of testing revealed general social immaturity, receptive language about six months below age level, obvious retardation in expressive language, articulation at age level, and normal physiological support for speech. Jim's speech was characterized by mild disfluencies. He repeated and prolonged initial sounds and syllables and occasionally repeated the entire word.

At the end of our out-patient examination it was concluded that Jim's disfluency may stem from a combination of factors. I quote, "His rapid rate of development after a long period of relatively slow development, may be creating pressures and putting more demands on his speech and behavior than he is capable of handling well at this time. The parents' anxiety about Jim's development, coupled with their attempts to teach him, may add additional pressures. It is felt that all these pressures plus generally slow development of speech and language may tend to increase disfluency."

Jim was brought to the clinic on Saturday mornings for individual and group therapy in the Primary Disfluency Program. The mother and father joined the parent group.

Therapy was structured around Jim's language delay. Naming and matching games were employed. Basic concepts were taught. The parents appeared overwhelmed by the problem and found it difficult to understand that we did not view, in their words, "the stuttering" as the basic problem. Our reports note that at the end of the third quarter of therapy the parents were finally beginning to comprehend the nature of Jim's problem and were able to cooperate in the activities aimed at vocabulary and syntactical development. We showed the parents how to simplify their sentence structure and diminish their speech rate when talking to Jim. One day when the mother was playing with Jim at the clinic while we watched from the observation room, he said, "You talking too fast for me."

In the parent group, the parents reported that they could not get the grandparents to stop reacting to Jim's fluency and to understand the nature of the problem. Perhaps we could have seen the grandparents – I have in some cases – but with the understanding and support of the group, the parents were finally able to tell the grandparents that they were welcomed to their home and greatly loved, but to leave the management of Jim to them.

This is not a new story in speech pathology, but it illustrates how important the change of the parents' perception of the child and the change in their reactions can be. Furthermore, these changes were brought about by reinforcing changes in their thinking or by using reinforcement to shape their thinking. Also, after they had positive feelings toward us, we were able to model behavior for them which they found rewarding to imitate. In turn, they were reinforced to see changes in the child come about as a result of our working as a team.

Speech clinicians employ a more direct approach with older children in whom we are dealing with acquired attitudes, learned behavioral patterns, and accessory speech mannerisms as well as factors which contributed to the development of stuttering. I have discussed elsewhere the difference in approach we use with elementary school age children and older youngsters and adults; also the way in which procedures differ at various ages depending on the developmental stage (Gregory, 1968, 1971).

Experience has taught me that deciding how direct to be in approaching the modification of inappropriate or maladaptive stuttering behavior involves a careful judgment. With school age children, dealing with the types of stimulus events I have discussed previously may be sufficient, although, of course, persons in the school environment should be included in the therapeutic

process. A semi-direct approach of parent-teacher counseling plus communicative activity therapy may be advisable. For purpose of our discussion here, let us assume therapy with a 10 year old boy that is direct in that it includes a direct analysis of the stuttering behavior and the reinforcement of modified patterns. Such a ten year old boy was Kurt, who had a moderately severe stuttering problem. He came to the clinic once a week for individual and group therapy and his parents attended the parent counseling sessions. All involved, Kurt, his mother and father, understood and readily accepted our ideas which were as the parents said, "a new twist." Voluntary disfluency was one of the procedures in the "new twist" category. We gave Kurt and his parents the rationale that when you used a modified disfluent pattern you were seeing that you could change your speech response and that you were doing on purpose the type of thing of which you were afraid. Kurt came to have new verbal formulas such as, "I am doing the thing I fear" and "When in doubt, cancel." We rewarded these statements. The parents rewarded these attitudes. The clinicians in the program modeled voluntary disfluency for Kurt and his parents. They all practiced this and other procedures together at home. We have found it very rewarding to children to have reinforcing agents such as teachers and parents actually carrying out some of these same procedures we are asking the youngster to do. To reverse the situation, not much change can be expected from a child when the parents do not understand, are uninterested, or, as in some cases, display a pattern of behavior which shows disapproval of what the clinician is attempting.

An interesting development in Kurt's case was a regression in progress during therapy. Seems that one evening at home while lying in bed talking, Kurt's older brother, age 14, said to our subject, "Why are you doing that stuttering on purpose? I thought you went to Northwestern to stop stuttering." Kurt replied, "I guess I shouldn't." So, in spite of a rather strong new attitude, the statement by the brother was damaging. I decided to have a few family counseling sessions attended by the parents, a younger sister age 7, the older brother, and Kurt. As his therapist said, "Kurt was King." We talked about speech, speech development, the development of stuttering, and Kurt's therapy. I have counseled families in this way when I was able to predict a successful outcome. This procedure is effective after the parents have been in the group counseling program for several months and the child involved is making progress. Another procedure we have used is to invite a child's teacher or teachers for such a counseling session in which a youngster, like Kurt, displays his new attitudes and behavior and receives our approval.

Modifications of environmental responses and inclusion of the family in the therapy process is of no less importance with adult stutterers. Motivation to actually change is a major factor. Sometimes such goals as doing better in school or getting a better position will produce general motivation, but more immediate support and reinforcement is needed as can be provided by a mother, a girl friend, or wife as the person makes certain desired changes in therapy. I recall a recent case who, although he professed a desire to change his behavior, also expressed a feeling of hesitation to change in some ways that were suggested. As it is our procedure in the Adult Stuttering Program to bring members of the family into the group, this man brought his wife who turned out to be a very attractive person. Her reaction was splendid! She was very fascinated with our techniques and "loved" what her husband was doing including the use of voluntary disfluency. That was a major turning point in this subject's therapy. To add a light note, I might say that I think a smile from her consequent upon some behavior was a strong generalized reinforcer for all of our clients.

In my recent report of a three year assessment of the results of stuttering therapy, I described a failure case in which the mother's adjustment and previous pattern of interaction with our client made it highly improbable that she could cooperate in therapy.

In my case summary, I stated:

> In some adult situations, of which the present client's may be illustrative, we may want to control carefully the information the parents or spouses have about therapy. Fred's main work in therapy may have to be to learn to react differently to the environment rather than hoping that along with his change there will be change in environmental factors.

The first part of this presentation was concerned with a review of theory and research relating environmental factors, which usually operate through the family, to the problem of stuttering. After that, I have shown how family reinforcements have been utilized in therapy – or in the last case how it was not probable that family reinforcement would be beneficial. In the last section, general principles already referred to will be expanded and summarized.

1. In working with pre-school age children, we deal with *stimulus events* (characteristics of the child and the environment) that may be occasioning disfluency of a nature that concerns us. We want to dissolve as much of the aversiveness that may be associated with speaking as we possibly can. A minimal expressive language problem, viewed as a behavioral deficit, may need to be reduced as general and specific language facilitation procedures are used. The parents cooperate by learning to react differently – e.g., not being aversive in their reactions to

the child's speech, and perhaps learning to be less punitive and more positive in their total relationship with the child. *Modeling procedures*, as described by Bandura (1965, 1969) and Mowrer (1960, 1965) are utilized. As the clinician comes to be a positive reinforcer to the child and the parents, i.e., his presence is associated with comfort (positive feelings), they will imitate his behavior. He may model a slower, more relaxed pattern of speech for the child. The parents may observe the clinicians interaction with the child as the clinician engages in language and fluency developing activities. I could go on with examples. Bandura lists three effects of modeling influences: (1) The observer may acquire new responses that did not exist in his behavioral repertoire, (2) Exposure to models may strengthen or weaken inhibitory responses in the observer as a function of rewarding or punishing response consequences to the model, (3) The behavior of models may facilitate previously learned responses in the observer that match precisely or bear some resemblance to those of the model. Theories to explain imitative and modeled behavior have been propounded by Miller and Dollard (1941), Mowrer (1960) and Bandura (1965). According to Mowrer, "B" learns from "A" because he experiences reinforcement vicariously. Bandura discussed the possibility that the acquisition of matching responses takes place through contiguity, and that reinforcements administered to a model influence performance. Speech pathologists need to devote more study to this method of behavior modification. We have used it, but we can be more systematic in our applications.

2. In modifying a child's or adult's behavior we have learned from Skinner and his students that one of the crucial elements in the process is the ***contingency between certain positive and negative reinforcing stimuli and emitted responses.*** As referred to earlier in describing the acquisition of sutttering, we analyze contingent relationships between responses and reinforcements. As I have said in the last chapter of *Learning Theory and Stuttering Therapy*, I think the emphasis on the careful analysis of behavior and the planning of action to be taken, measuring progress as precisely as possible, is contributing to more efficient and effective therapy. For example, if we want to improve eye contact of a stutterer, we first get a baseline measure of this behavior. Then, based on our observation of or acquaintance with the subject, we choose a reinforcer. With one of our subjects we used chips that could be exchanged for coins which this 12-year-old wanted to add to his coin collection. At first, we gave one chip for each demonstration of eye contact and only ten chips were needed for a coin. Later 20 chips were needed for a coin. Still, in later sessions, the schedule of reinforcement was changed from a continuous to an intermittent schedule. Skinner has found that intermittent reinforcement schedules reduce extinction. Mowrer (1960) stated that intermittent reinforcement during acquisition produces greater frustration tolerance when reinforcement occurs irregularly as it does in real life. In addition, I speculate that this allows self-reinforcement to begin becoming effective. The parents obtained a baseline at home at the beginning of the program. As our samples of eye contact behavior in the clinic showed improvement, the rate of eye contact responses at home also increased. The parents were trained to carry out the response-reinforcer contingency at home during practice periods.

3. As we countercondition anxiety and modify behavior in the clinic, the new attitudes and overt behavior have to be ***generalized to other situations.*** I bring outside real-life situations into the clinic as much as possible. Roles representing real life situations are practiced in the clinic, hopefully, to insure more success when attempted in the actual situation. A wife of an adult stutterer may be brought into a conversational situation at the clinic in which the husband uses a speech modification before he is asked to use the modification at home. These approaches take into consideration a gradual desensitization approach in which responses are changed, first in the presence of stimuli which evoke minimal stress, and then in situations that have a history of producing higher levels of anxiety.

4. In stuttering therapy we work with *verbal "thought" behavior* as well as the overt responses of the person. Taking initially after Dollard and Miller I have spoken of labeling, thinking, and verbal formulas or cues. Those who took after the operant conditioners first, and I might say that verbal behavior as related to overt behavior is a more recent development for Skinner, speak of verbal self-instruction. The younger the subject, the more we stick to work on stimulus events and overt behavior, but as the cognitive life of the child becomes more important at eleven or twelve years of age perhaps, we have to give this aspect of behavioral control more attention. Furthermore, it would appear most important to deal with the parents' behavior as it is mediated by language and thought.

5. In this brief discussion of the onset, development, and treatment of stuttering the influence of the family appears large. Advocates of *family therapy* in psychiatry and psychology have challenged the validity of seperate and individualized treatment of a child and parents or husband who is the patient and his wife. In this discussion, I have emphasized the collaboration of others in the environment and have mentioned briefly some counseling I have done of family units when it was indicated and a successful outcome could be predicted. As

we continue to increase our professional working relationships with psychiatry and psychology, we should follow carefully the developments in the area of family treatment.

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Discussion

BANGS: Yesterday Dr. Snidecor talked about laryngectomees and who should and who should not work with them. He feels strongly that a laryngectomee should not work with another laryngectomee. I would like to ask you, Hugo, do you feel that a speech clinician who stutters or who has remnants of stuttering should work with stutterers?

GREGORY: This is a question that I have dealt with in my own thinking, in talking with my students, and in talking with students who have been stutterers and are thinking about going into Speech Pathology. In addition, you will be pleased to know that I have talked to Dr. Van Riper about this. Therefore, I can bring you the results of our discussion. I think that it is very important in working clinically that the client feel you are very interested in him and that you want to understand as well as possible the way he thinks or feels. It is all too infrequent in life that we have this type of relationship. How many of you have had people with whom you can talk, who you feel are genuinely interested in you? The person with a problem of stuttering may feel that the clinician who has been a stutterer, or who may, as Dr. Bangs stated, have remnants of stuttering, is able to understand him in some special way. But, I know that all of you are thinking that the person who has experienced a particular difficulty has to be very careful to not perceive the other person's problem in terms of his own experience. I agree that we have to be very careful about this. In my work with laryngectomees, I have felt that this is often a problem confronted by a laryngectomee who is a layman instructor. When Dr. Van Riper and I discussed this a number of years ago, we agreed that a person who has not stuttered or who does not stutter may have an advantage if, through his experience in the clinic and in interacting with stutterers, he can gain insight into the attitudes of stutterers. In this case, the stutterer realizes that here is a person who does not stutter who understands. Here we have the situation of a person who expresses keen insight, but it is not because he has had to understand in order to work with his own problem. It is because he wanted to understand in order to help others. Let one of our clinicians working on a Master's Degree be willing to go out and use voluntary disfluency. Let her really show the stutterer that she has the courage to do that. This type of a model demonstrated by a non-stutterer can have very important, challenging effects on the stutterer in therapy.

ALLMOND: A parallel to what you're saying, obtains in the field in which I'm particularly interested, the evaluation of children with learning and language problems; that is non-reading third graders are very effective at teaching non-reading first graders how to read. This has been shown in the research literature. I have a question of my own, but before I ask it, I would like to give you a positive reinforcer: and that is–I was very impressed with your presentation this morning and feel that it was a well-conceptualized and well-thought out paper, and I commend you on it. Now my question is, where did you learn your principles of family intervention, and do you feel they are learnable by the members of this audience?

GREGORY: Throughout my training, the importance of the parents in working with children with speech and hearing problems was emphasized. In working with almost all speech, hearing, and language problems we are going to have to work with the mother and father. Perhaps we have not included the father in counseling or the therapeutic process as much as we should. When we consider the ways in which we have learned about counseling, I would say that the most important influence on me was the opportunity to watch a person like Dr. Moore, who spoke here yesterday, counsel a youngster or his parents. I feel that this modeling of behavior–to use the concept I was employing in my remarks–is one of the most important ways of teaching. We can send our students out to the Department of Psychology or the School of Education to take courses in counseling and interviewing, or we can offer academic courses ourselves. Still, I think, more is going to be learned by watching others. In terms of working with family units, I have brought the various members of a family into a counseling unit including siblings when I felt that the outcome was going to be advantageous and successful. I

have not brought in a family unit together at the beginning of the therapeutic process.

ALLMOND: You say you don't do it, but what you described in your paper is that you were doing it.

GREGORY: Yes, I said that I do do it and that I have been doing it for the last ten years. I have used a variation of the concept of family counseling as it may be discussed in the literature. In working with a youngster, we always counsel with the parents from the beginning. Then, as the child is showing improvement and we have gained insight into the way that the behavior we are changing is being effected by other members of the family unit, we may see them all together in a group for a number of sessions. I would not be comfortable to see all of the family together from the beginning. I would like to have the opportunity to see that approach demonstrated before I undertake it.

ALLMOND: Would you be comfortable incorporating into a teaching program for future speech and hearing clinicians some of the principles which you have come in contact with in your own experience?

GREGORY: Yes. I think we should give this serious consideration in the future. However, as I have expressed before, I would like to work with a person who has had particular experience in the area of family counseling. It is my belief that there is a great deal for all of us to comprehend and experience when we work with a human being. So, we are going to have to bring others with differing experiences, with whom we can work, into the therapy program. If I were in San Francisco, I would certainly want to get to know you better and explore ways in which we could cooperate in this area of family counseling.

FLOWER: Hugo, there's one thing I'd like you to comment about. One of the things we have inherited from the work on the onset of stuttering you alluded to is that during – I'll use the "blab words" – the primary stages (assuming there is such a thing) it is deleterious to the child's welfare to meet the symptom head on. Is it possible then to deal with the problem in a family context? In other words, can we work with the young patient and parents together, or does the peculiar nature of stuttering during these early stages mean that we cannot help the family meet the problem head on and deal with it directly?

GREGORY: Dr. Bangs, do you want to add anything to Dr. Flower's question?

BANGS: If you do involve the child with the parents, do you ever have them observe individual or group work? Do you ever have the parent go into the classroom where he carries on the activities while you observe? Do you ever video-tape with instant playback?

GREGORY: Let me deal with this last question, and then go on to the broader one which Dr. Flower asked. We do model for parents the kinds of things that we want them to do. Then we reinforce them for changes in their behavior. In my career I have done a great deal of parental counseling where I said, "Now, this is the kind of thing we are doing in the clinic, and we would like for you to do at home each day with Johnny." Verbal description may be an effective beginner, but combined with a demonstration, the results are much better. We have used video-tapes of therapy session for our parent discussions. In addition, we have used video-tape recordings to help school-age stutterers and adults begin the process of analyzing their stuttering behavior. The stutterers may view a video-tape playback of another stutterer and analyze the behavior observed before they begin to analyze their own. Now, to get back to Dr. Flower's question. In stuttering therapy, we make a judgment as to whether we work with stimulus conditions that elicit or control dysfluent–stuttering behavior in a child, or whether we help the person modify the dysfluent response itself. In general, with the younger child, we work with stimulus conditions. A careful decision is made about working with the speech response itself as well as environmental factors or minimal language and motor patterning factors that may be stimulus conditions contributing to dysfluency. Calling attention to the dysfluent speech response itself may in some cases attach aversiveness to that response for the first time. We have to be careful about this.

FLOWER: But how about attending to the dysfluency itself; not teaching an alternative, but contacting the dysfluency itself?

GREGORY: In some cases, we must contact the dysfluency through working with stimulus conditions associated with it. These stimulus conditions may be only environmental or they may be a combination of environmental factors and maturational factors such as a minimal language deficit.

SHERMAN: I have a couple of questions. I'm really in agreement with your emphasis on learning theory and reinforcement procedures, as probably is evident from my earlier comments. In many of the examples you have talked about, you've tried to give us an idea of the use of

reinforcement procedures to shape the parents to do therapy. Given that you can use social attention and various kinds of approval to shape the parents, what do you shape the parents to do? Do you shape them, for example, to differentially reinforce closer and closer approximations to fluent speech in the home situation? Do you give the parents specific tasks to present to the child in which he is to verbalize fluently or nonfluently?

GREGORY: If we begin by referring to the young child who demonstrates fluency characteristics about which we are concerned, we make a judgment about therapy goals based on a careful evaluation or study of the child and his environment. If a parent talks very fast, and if we come to believe that this may be related to the child's dysfluency, I can model to the parents the way to talk more slowly and relaxed in the child's presence. I can demonstrate in most cases, the time varying from child to child, that the youngster will become more calm and speak more fluently when this type of stimulus condition is in effect. The parents can view this from behind the observation mirror. We can gradually bring the parent, or parents, into the therapy room with us and have them talk more slowly with the child. In the next step, we can leave the room and observe the parent from behind the mirror. Once the mother is making changes in her behavior at the clinic, we can assign her specific times to make these changes at home.

As we know, the way in which the family and other environmental influences are involved in therapy for dysfluent–stuttering children differs in terms of two major variables: first, the developmental stage of the problem using such a reference as Van Riper's four stages of development; and, second, the chronological age of the child. Now, when it comes to the intermediate age stutterer in a later stage of development, we may deal more specifically with the stuttering behavior itself, as well as stimulus conditions associated with it. We may decide to modify the speech response somewhat, for example, ask the child to speak somewhat slower and relaxed or show him that he can change the amount of tension involved in the production of bilabial voiced sounds. We make certain reinforcement contingent on that response. After we have been doing this for a while in the clinic and the youngster is experiencing success, we demonstrate the target behavior and the reinforcement procedure to the parents or others in the home and have them do the type of thing we have been doing in the clinic during certain periods at home. We have them keep records and report to the clinician.

FLOWER: Among the "certain behaviors", do you include speech fluency?

GREGORY: Well, in a way, if that were the objective. However, practically speaking, the target behavior or objective is usually easy speech, relaxed speech, or to use an example I mentioned earlier, light contact on the bilabial voiced consonant-vowel combinations. Usually with the pre-school child, the kinds of activities we are reinforcing in the parents will be conducive to more fluency in the child, and we tell the parents that as a result of what they are doing their child is going to be more fluent. We observe the child at least once weekly and the parents report to us, individually or in the parent group.

FLOWER: What do you have the parents attend to?

GREGORY: As I mentioned previously, we made a decision about rewarding certain modified behaviors in the child or certain modified behaviors in the parent. The older the child and the more advanced the development of the stuttering, the more likely it is that we will work for both modifications in the parents' behavior and modification of the child's speech responses.

SHERMAN: I'm curious about the laboratory studies that have been done to modify stuttering behavior - those by Martin and Siegel (19) and by Goldiamond (19) and by a variety of other people. Do you see these kinds of laboratory procedures as being useful in actual therapeutic practice?

GREGORY: I am glad to have the opportunity to comment on this work. I have emphasized in my remarks that in the problem of stuttering we are dealing with a very complex stimulus-response-reinforcement situation. We might take the approach that we have to be very general in our research because this behavior is so complex. There is another approach which, as we would expect is more characteristic of the laboratory, in which we try to take a specific aspect of the behavior and be more specific in our study of it. As we know, these investigators have indicated that response contingent punishment decreases dysfluency in normals and stuttering behavior in those who stutter. A study by Martin and Siegel (19) has indicated that punishment of dysfluency and reward of fluency increases fluency. Those of us in Speech Pathology know that we have been conditioned in our field to say punishment is bad, that punishment increases stuttering. Well, it depends on how we look at punishment. If I say to you after you make a response, "No, that's not quite right," that's what a psychologist in a learning tradition would say is a "punisher."

SHERMAN: If it decreases the behavior.

GREGORY: Dr. Sherman is emphasizing the operant definition of punishment in that a stimulus following a response is a "punisher" if it decreases the behavior. My present point of view is that the laboratory studies by Goldiamond and Flanagan (19) and Martin and Siegel (19) indicate that we can use certain punishing consequences to diminish and disrupt stuttering behavior and certain reinforcing consequences to reinforce modifications. You can view this as counter-conditioning. Where one stimulus condition was present and a certain response was made, we are now enabling the person to make another response which is reinforced. We are also using the punishing consequence to help the person diminish the previous response. We are experimenting with these procedures in therapy. When I experiment in therapy, I have to be very careful because I cannot do anything unless I think it can be rationally made a part of a constructive therapy program. I appreciate these research results that Dr. Sherman has asked about. They pave the way for our consideration of new constructive applications in the clinic.

The Role of the Family in the Management of the Deaf Child

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Recent research in linguistics and psycholinguistics emphasizes that one of the most important aspects of language acquisition is that it takes place in a very short period of time. The child with normal hearing who moves past the use of holophrastic utterances begins to combine words sometime before the end of his second year and is a relatively fluent speaker of his language by the age of four. By this age the child has mastered the basic grammatical structure of his language, and this process usually is complete by the age of eight years. Beyond this age, the typical child will learn to elaborate and consolidate certain grammatical structures to achieve greater maturity and economy of expression and will continue to expand his vocabulary to meet the needs of his environment, although for most people vocabulary shows little growth beyond the age of about 18 years. It is obvious from the linguistic and psycholinguistic research, and indeed even from casual monitoring of the speech of young normal children, that the first four years of life are crucial for language development. This observation has been reinforced by research and experimental programs with culturally disadvantaged children whose early impoverished environments often result in serious retardation in language development.

While generalizations to the language development of deaf children must be made with some caution, the overwhelming weight of the evidence from studies of normal hearing children makes it reasonable to assume that the first four years are also critical years in the life of the deaf child. Not only are these years critical in the development of language and communication, they are also critical in the development of emotional and social attitudes and adjustment. Yet, these often are wasted years in the lives of deaf children, many of whom do not receive systematic training from professional personnel nor from their parents in developing the language and communication necessary for future participation in society. As one result, most deaf children in the United States finish 12 to 16 years of schooling by the age of 18 to 20 years with poor oral and written skills, and educational level below the sixth grade, and an even lower reading level. If any significant breakthrough is to be achieved in improving the development of the deaf child, it would seem that it will have to occur during the first few years of life with methods which will foster early development of language and communication. And in those early years the family must be the primary agent of development of the deaf child, as it is for the development of children who have normal hearing.

From these introductory remarks it will be obvious that I have chosen to limit my topic to the deaf child without, for the moment, entering into any discussion of the term "deaf", and to further limit it to the vital role that the family plays in the deaf child's development. It is my thesis that the family is almost indispensable in developing language and communication in the deaf child, and that our professional efforts should be directed toward equipping the family to provide this development rather than toward direct work with the child himself. Let me hasten to add this is not a new point of view. It was current in the education of deaf children for many years before the recent emphasis on early childhood education stimulated by federal interest and funds. However, the federal involvement now gives us for the first time the promise that funds may eventually become available to extend early childhood services to all deaf children, as well as to other children who may need them.

After having presented in some detail the findings of two studies which are pertinent to our purpose, I propose in my concluding remarks to relate them to several points which might serve as a basis for group discussion.

1. The first four years of life are as critical for the development of language and communication and social adjustment for the deaf child as they are for the child with normal hearing.

2. The family is of primary importance in the deaf child's development during his early years, and we should accept the responsibility for equipping the family with the knowledge and skills to foster this development.

3. Since the audiologist is usually the first or second person to make the diagnosis of deafness, he must accept the responsibility for working with the family and the young child to develop a program of home management.

4. Since the training of audiologists presently leaves them ill-equipped to function in this capacity, audiological training should be expanded to better equip practitioners for this role, or a specialty should be developed within audiology and/or education to deal with the home and clinic management of the young deaf child.

5. The public schools are not now, nor will they be in the foreseeable future, prepared to function at the home and infant level; and, therefore, speech and hearing centers should accept leadership responsibility in developing home and clinic management of the young deaf child and articulating those services with the educational services provided by the schools.

Experimental Investigations of Family Management of Young Deaf Children

While early childhood education has achieved widespread visibility in recent years because of the interest and programs of the Federal government, it is a development of considerable maturity in the education of deaf children. I do not propose any detailed discussion of the history of this development, but would like to point out some of the highlights of the development in this and other countries. Home and family management of the young deaf child is commonplace in several European countries, including England, Sweden, Denmark, and the Netherlands. In this country the work at the John Tracy Clinic, Central Institute for the Deaf, and other places is well known. Observation indicates there are few differences in methods used in this country and in Europe in instructing the family in the management of the child; however, there are three important socio-political differences which result in early childhood education being more widespread and systematic in several European countries than in the United States. First, those countries are small by comparison to the United States and their populations are more concentrated; second, centralization of government responsibility permits the application of uniform social services; and third, and perhaps most important, socialized medicine makes possible adequate medical services for all people, with particular emphasis being given to the early detection of handicaps in children. It is these factors, rather than any superiority in techniques of clinical and educational management, that make early childhood education more widespread and systematic in some European countries than it is in the United States.

While a number of centers in this country have emphasized the importance of early childhood education for deaf children, and the central importance of the family in that education, the work of the John Tracy Clinic is perhaps the most widely known because of its correspondence course program. Since its founding in 1942, the John Tracy Clinic has agressively promoted the idea that the greatest influence in the deaf child's early years should be the family and that the family must be given the means to work with the child in the home. One outgrowth of this philosophy was the correspondence course which has been used by thousands of families and which obviously recognizes the parents as the child's early teachers. Another, and more recent, outgrowth was the idea that training of the parents in home management of the deaf child should take place in a home-like setting rather than in a clinic. This idea has spread to several other centers and one of the two experimental investigations I wish to discuss is a study of this approach to the home management of the young deaf child. Before proceeding to that task, let me point out that the systematic programs of early childhood education and home management that prevail in some European countries have not eliminated the need for special educational facilities and programs for such children when they reach school age. I will return to this point in my concluding remarks in trying to provide a proper perspective of what can be expected from family management of young deaf children.

Home Management Program at the Bill Wilkerson Hearing and Speech Center

In February, 1966 the Bill Wilkerson Hearing and Speech Center, with support from the U. S. Office of Education, began an investigation of the effects of early home training on the development of young hearing impaired children. The final report on this project was

submitted by McConnell and Horton to the U. S. Office of Education in January, 1970. I plan to present only part of that report for our discussions, but recommend a thorough study of the project to anyone interested in the home management of hearing impaired children. It is one of the very few studies in this important area which provided data on the children and their families, on the program which was undertaken, and the results which were achieved.

The McConnell and Horton (1970) study was patterned after the home training program of the John Tracy Clinic. It involved providing a home setting for parent training, intensive and continuing hearing evaluation of the children, provision of hearing aids for the children, informing the parents of the nature and effects of hearing impairment, and instructing the parents how the home setting could be used to provide opportunities for developing language and communication in the hearing impaired child. The investigators listed the main objectives of the project as being:

1. To provide a parent oriented program appropriate to the needs of the very young child;
2. To provide a program in which the skills basic to attainment of language could be practiced on an intensive basis in the child's home; and
3. To develop a manual of home teaching techniques to be used for supplementing and facilitating the effective management of the deaf child during his first three years of life.

A population of 94 children was served during the three-year period of the project and extensive data are given in the report on these children, their families, and the results achieved. However, a number of uncontrollable factors resulted in lack of continuity of attendance for many children, and the data I will present are based on 28 children who had continuous attendance in the program for an instruction period with a mean length of 27.8 months for the group. As the authors themselves state, it seemed reasonable to select a subgroup from the population which would best represent the home teaching program on the basis of having spent a sufficient length of time in it to permit some definitive conclusions to be reached.

Table 1 shows some background data on the children and their parents. Of particular interest are the data on the hearing levels of the children. The initial unaided Speech Awareness Level for the group had a mean of 71.6 dB with a range of 40-100 dB. While the project was designed to deal with very young *deaf* children, the hearing level is not as severe as that usually associated with the term "deaf". This is more apparent in the initial aided Speech Awareness Level where the group mean was 48.6 dB with a range of 20-100 dB. These data raise some questions concerning the degree and type of hearing impairment, as do the data for the final aided examination where the mean was 27.1 dB and the range 8-65 dB. This point is being emphasized only to caution against overgeneralization of the results of the study to children with more severe degrees of hearing impairment.

Table 1. Summary description of 28 children with respect to parental occupational classification, amount of home program instruction, and hearing level for speech.

	Mean	Stand. Dev.	Range
Parent's occupational classification	3.9	1.8	1-7
No. home visits	21.2	12.8	7-57
No. hr. instruction	27.2	16.1	7-68.5 hr.
	HEARING LEVEL		
Speech awareness level, 1st Exam, unaided	71.6 dB	15.2 dB	40-100 dB
Speech awareness level, 1st exam, aided	48.6 dB	21.3 dB	20-100 dB
Speech awareness level, last exam, aided	27.1 dB	17.2 dB	9-25 dB

Table 2 shows the results which were obtained with the 28 children in language development. Language Age was measured by the Communicative Evaluation Chart (Anderson, Miles, and Matheny 1963). On the basis of this evaluation, the children progressed 20.8 months in Language Age during the 27.8 months of instruction at home and in the demonstration home setting, which is very notable progress indeed.

Figure 1 shows the results obtained when the 28 children were divided into three subgroups on the basis of Language Age gain in months - the one-third with the greatest amount of gain, the middle third, and the one-third which made the least gain. It can be seen that the separation of the groups in Language Age was accompanied by separation in hearing level also, with the lowest language gain being made by the groups with the most severe hearing impairment. As a matter of interest, it can be seen from Figure 2 that the differences in Language Age (and also the differences in hearing level) were related to differences in mean Social Quotient on the Vineland Social Maturity Scale.

These few data from the McConnell and Horton study are sufficient to indicate that very early intervention through the auditory sense in a cooperative program between professionals and families can be successful in

Table 2. Pre- and post-instruction comparisons for 28 children on Chronological, Language and Performance Age.

	Mean	Stand. Dev.	Range	Diff.
	Chronological Age			
Pre-instruct.	27.5 mo.	8.2	10 - 40 mo.	27.8 mo.
Post-instruct.	55.3 mo.	8.6	34 - 69 mo.	
	Language Age			
Pre-instruct.	8.4 mo.	2.3	4.7 - 13.8 mo.	20.8 mo.
Post-instruct.	29.2 mo.	13.0	12.7 - 57.0 mo.	
	Performance Age			
Pre-instruct.	23.2 mo.	----	9.2 - 30.8 mo.	24.7 mo.
Post-instruct.	47.9 mo.	----	26.6 - 60.0 mo.	

improving language and communication development. As pointed out earlier, caution should be exercised in generalizing to children with more severe degrees of hearing impairment than those in the study. For our purposes in this meeting, the point of interest in this study is that the family played a major role in early work with the hearing impaired child. And this role was not merely a supportive one, for the family in a very real sense became the teacher of the young child.

Studies of Deaf Children of Deaf Parents

A few studies have been conducted in recent years of deaf children of deaf parents which have implications for the role that the family can perform in the management of deaf children. I propose to discuss one of those studies which was conducted by Meadow (1967, 1968).

Meadow's thesis was that the basic impoverishment of deafness is a result of lack of language rather than a lack of hearing (although the two are obviously related), and that the deficiencies in language, communication, educational level, and personal and social adjustment that are characteristic of many deaf persons result from environmental factors involving the early home management of the child rather than being an inevitable consequence of deafness, *per se*. In order to examine this thesis, Meadow compared the performance of deaf children of deaf parents with the performance of deaf children of parents with normal hearing on the assumption that the early socialization experiences of deaf children of deaf parents would differ markedly from those of other deaf children. She reasoned that acceptance of a deaf child by deaf parents should be comparatively easier than for hearing parents, and that most deaf children of deaf parents have a ready means of communication from early childhood, since most deaf adults use manual communication as a matter of course between themselves and with their children.

Three hypotheses were formulated for the study:

Hypothesis 1. Deaf children of deaf parents, compared to deaf children of hearing parents, are more likely to show a higher level of intellectual functioning.

Hypothesis 2. Deaf children of deaf parents, compared to deaf children of hearing parents, are more likely to show a higher level of social functioning, especially apparent in situations requiring "maturity" and "independence".

Hypothesis 3. Deaf children of deaf parents, compared to deaf children of hearing parents, are more likely to demonstrate a higher level of communicative competence, including competence in written and spoken, expressive and receptive language.

The base population of the study consisted of 59 children with deaf parents who were enrolled in the California School for the Deaf in Berkeley, California. These children were matched individually with 59 deaf children enrolled in the same school whose parents had normal hearing. The two groups were matched on the basis of sex, age, IQ, hearing level, and family size. In addition, children of hearing parents were eliminated

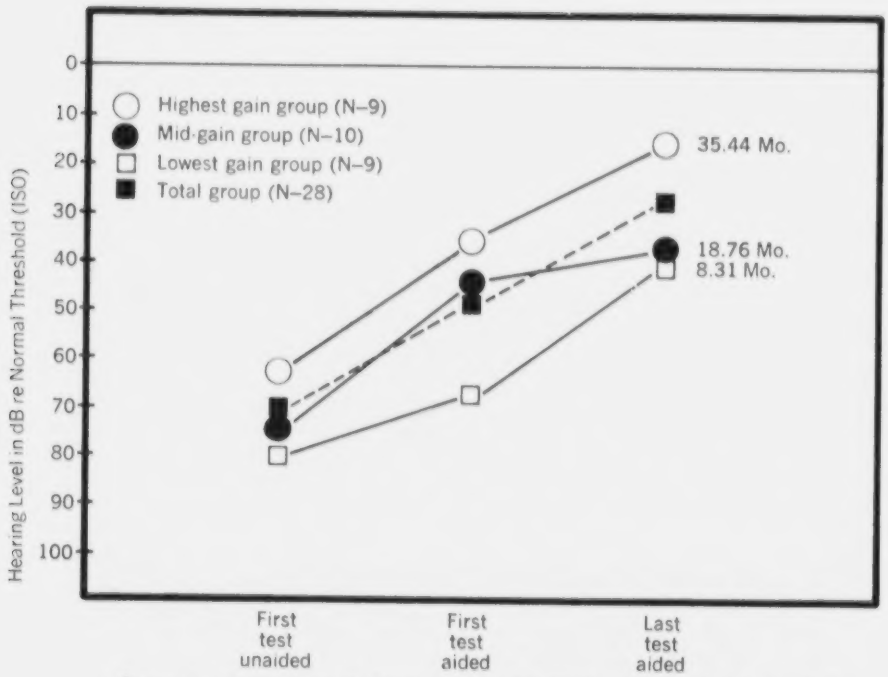

Figure 1. Comparison of mean unaided and mean aided hearing levels (first and last) for 28 children divided into three subgroups on the basis of Language Age gain. (Figures at right indicate mean L. A. gains for the three subgroups.)

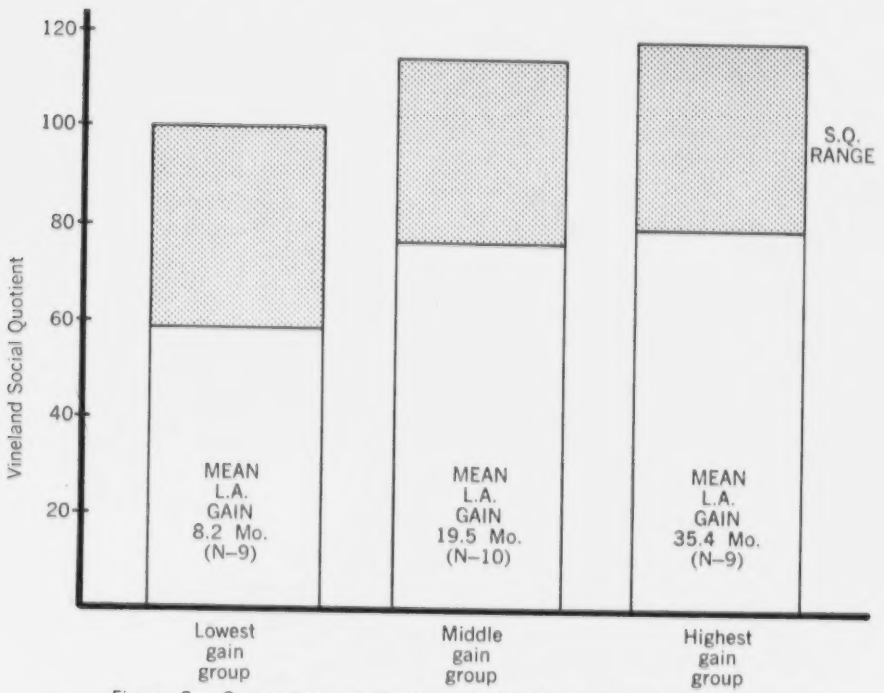

Figure 2. Comparison of Vineland Social Maturity Scale levels for three groups of children divided on the basis of Language Age gain.

from consideration if they had any of the following characteristics:

1. deaf siblings;
2. racial or ethnic minority group membership;
3. secondary handicap (e.g. physical condition in addition to deafness which interfered with functioning);
4. deafened after the age of two years;
5. deafness resulted from maternal rubella, Rh incompatibility, or anoxia.

Table 3 from Meadow (1968) shows the matched-pair comparisons of Stanford Achievement Test scores for 32 pairs of children for whom such scores were available in 1966. It can be seen that differences in grade level, reading level, and arithmetic level, *favoring the children with deaf parents*, were significant at or beyond the one per cent level. The considerable difference of more than two years in reading level is of particular interest to persons who are familiar with the education of deaf children.

Table 3. Matched-Pair Comparisons of Stanford Achievement Test Scores: 1966 Grade Average, Reading, and Arithmetic

	Mean difference	(N) (pairs)	t
Grade average	+ 1.28 years	(31)*	2.84**
Reading	+ 2.10 years	(31)*	2.56**
Arithmetic	+ 1.25 years	(32)	3.67**

*one tied observation dropped from the analysis.
**$p \leq .01$

An index of ratings by teachers and counselors familiar with the children in the study was used to compare the two groups in the areas of social and personal adjustment. Table 4 from Meadow (1968) shows the results of these comparisons, and it can be seen that pair-by-pair analysis of the various items describing social functioning favored the children of deaf parents in all instances.

Table 5 from Meadow (1958) contains data on the communicative functioning of the subjects. It will be noted there were no significant differences between the two groups on the ratings of speech and speechreading ability. On the other hand, there were significant differences favoring the children of deaf parents on: (1) facility in written language; (2) ability to finger-spell; (3) ability to read others' fingerspelling; (4) ability to use the language of signs; (5) no apparent frustration from ability to communicate; and (6) willingness to attempt communication with strangers.

Meadow (1967, 1968) concluded that the results of the study confirmed her initial research hypotheses regarding the superior educational and social functioning of deaf children with deaf parents compared to deaf children with hearing parents. Confirmation was obtained on the Stanford Achievement Tests, teacher-counselor ratings of educational functioning, social and personal adjustment, and language and communication skills, with the exceptions noted for ratings of speech and speechreading ability where no significant differences emerged between the two groups.

Much of Meadow's interpretations of her findings is concerned with the thesis that exposure to both manual and oral communication at an early age is likely to produce better results than exposure to only one form. This is an interesting thesis, but it is not our concern at this meeting. The point of interest for our discussions is that the studies by McConnell and Horton (1970) and by Meadow (1967, 1968), emphasize that early intervention is essential to the improvement of language and communication and personal and social development of the deaf child, and that in such intervention the family

Table 4. Index Ratings of Social Adjustment Variables for Matched Pairs of Children with Deaf or Hearing Parents

Rating Scale Item	No. of Pairs	No. where Children with Deaf Parents Rated Higher	Wilcoxon T value	z
Mature	56	39 (70%)	430.0	2.99**
Responsible	55	38 (69%)	432.5	2.83**
Independent	53	40 (75%)	281.0	3.85**
Enjoys new experiences	55	36 (65%)	501.0	2.25*
Friendly, Sociable	55	42 (76%)	405.0	3.06**
Popular with classmates	55	40 (73%)	434.0	2.82**
Popular with adults	52	34 (65%)	427.5	2.38**
Responds to situations with appropriate emotion	55	34 (62%)	535.5	1.97*
Shows appropriate sex-role behavior	54	33 (61%)	509.5	2.01*

**$p \leq .01$ *$p \leq .05$

Table 5. Matched-Pair Comparisons of Index Ratings for Communicative Functioning, Children with Deaf or Hearing Parents

Rating Scale Item	No. of Pairs	No. where Children with Deaf Parents Rated Higher	Wilcoxon T value	z
Speechreading ability	46	22 (48%)	623.0	.10
Speech aptitude and performance	51	21 (41%)	758.0	.89
Facility in written language	49	35 (71%)	263.5	3.47**
Ability to fingerspell	54	50 (93%)	18.5	6.23**
Ability to read others' fingerspelling	52	49 (94%)	25.0	6.09**
Ability to use the language of signs	55	46 (87%)	117.0	5.47**
No apparent frustration from inability to communicate	56	39 (70%)	319.0	3.89**
Willingness to attempt communication with strangers	45	30 (67%)	335.5	2.06*

**$p \leq .01$ *$p \leq .05$

plays a crucial role. Results of the two studies indicate this to be the case, even though the studies were quite different in philosophy, one being concerned with the effects of early intervention through amplification and audition and the other with the effects of early exposure to manual communication. Other studies could be cited to support these results, but these two are sufficient to provide a basis of discussion of the importance of the family in the early development of the deaf child, and the importance of such early development for the later development of the child.

The Role of the Family, the Hearing and Speech Center, and the School

Early in this paper I listed five points which might serve as basis for discussion of the role of the family in the management of the deaf child, and would like to discuss those points now in relation to the findings of the two studies which I have just presented. I will pass over the first point on the importance of the first four years of life since it seems axiomatic.

Part of the second point, that the family is of primary importance in the deaf child's development, probably merits little debate. Linguistic and psycholinguistic research with hearing children has indicated the importance of the first three or four years of life for the development of language and communication. Compare the four-year-old hearing child, who usually has a vocabulary of between two and three thousand words and a working knowledge of the basic syntactic structure of his language, with the profoundly deaf child of similar age who might have only a few words of vocabulary and little or no command of syntactic structure, and the importance of those early years of life, the deaf child suffers experiential deprivation which can retard his educational and personal development throughout the rest of his life.

The second part of the second point, that professional personnel should accept the responsibility for providing the family with the knowledge and skills to foster the deaf child's development, might produce some disagreement. Professional individuals often are reluctant to accept the idea that the parents of a child can be trained to function as his teacher or clinician. Yet, there is no reasonable alternative to this in the early development of the child. Many of the early childhood programs for culturally disadvantaged children, which are not bound by the traditions of education, operate on the assumption that as much effort should be expended on training the parent to train the child as on direct training of the child, himself. Since language and communication development is a continuous process throughout the child's waking hours, the parents are the only individuals who have sufficient contact with the child during the early years of life to provide the continuous stimulation necessary for language development. If the parents of deaf children are to perform this function adequately, they require training and education for the task.

Lowell (1967) has listed four stages of parental education which are important to guidance of the learning of a deaf child: awareness, acceptance, information, and application. By awareness is meant realization by the parents that the child has a profound hearing impairment and the implications this has for his future development, particularly his development of language and communication. Since, again according to Lowell (1967), first the audiologist, and second medical personnel, are responsible for the initial determination of hearing impairment, it is on these persons that the parent must rely for initial advice in guiding his child's

development. Few public school programs accept deaf children before the age of three years, and not many before the age of five, so that in the foreseeable future (unless responsibility for early childhood education spreads more rapidly throughout the public school system than seems likely) some other types of institutions will have to accept at least partial responsibility for the management of the young deaf child, and one logical type of institution is the hearing and speech center.

The acceptance of this responsibility by hearing and speech centers has some implications for the role and training of the audiologist which relates to the third and fourth points I listed earlier. I believe it reasonable to assume that most audiologists are ill-equipped by training to provide guidance to parents in managing a deaf child. Too frequently, their training is concentrated on diagnostics with accompanying work in acoustics, anatomy and physiology, statistics, speech and hearing science, and other areas which educate them in the hearing and speech process and its disorders. Too infrequently is there any systematic preparation in family and child development and guidance and practicum with very young children and parents. If this kind of training cannot be included in all audiology programs, perhaps a new specialty needs to be developed in home and family management of the young hearing impaired child to prepare individuals who can manage the stages of acceptance, information, and application in parental education described by Lowell (1967). As McConnell and Horton (1970) have pointed out, "educational concepts for deaf children of school-age cannot be applied as a simple downward extension to include the infant and the nursery-age child. A completely new kind of orientation to her role will be needed by the teacher, first of all, who must be able to work effectively in a non-teacher kind of counselor approach. She must focus on the parents since their involvement is crucial to the success of any program with a child too young to enter into a formal educational experience."

Either the audiologist or the new type of teacher will have primary responsibility for creating acceptance, information, and application on the part of the parents. As Lowell (1967) has stated, many parents are unable or unwilling to fully accept the fact that their child is deaf. The programs at the John Tracy Clinic, the Bill Wilkerson Center, and other institutions have found that observing other deaf children and talking with other parents of deaf children who share the same problems, helps parents in the emotional acceptance of deafness. Such observation and discussion should, of course, be guided by professionally qualified personnel.

Realistic acceptance of the fact of deafness is important to the next stage of providing the parents with information about the role they can play in their child's education. McConnell and Horton (1970) found that several sessions were required to provide parents with basic information on the effects of deafness and what parents could do to promote auditory training, the use of hearing aid, and language and speech development. In addition, continuing periodic attendance was required of the parents at clinic sessions throughout their child's attendance in the program. McConnell and Horton (1970) considered this continuing education of parents to be an essential factor in success in the program. On the other hand, it should be remembered that the John Tracy Clinic has conducted much of this type of work through correspondence courses for many years.

The final step described by Lowell (1967) in parental education is application. And this essentially means that the parent must be trained to become his child's teacher. In several programs throughout the country, this training of parents is conducted within demonstration home settings rather than in clinics, and the McConnell and Horton (1970) study was an investigation of this procedure. By training parents to use routine household activities as the vehicle for teaching, they can be shown how to make maximum use of the many opportunities for learning in everyday activities. It is believed that teaching in the simulated home situation will also increase the likelihood of transfer and application in the real home.

The fifth point I listed earlier stated that the public schools are not now, nor will they be in the foreseeable future, prepared to function at the home and infant level; and therefore, hearing and speech centers should accept some leadership responsibility in developing home and clinic management of the young deaf child and in articulating those services with the educational services provided by the schools. Some of the programs which have been developed are located in hearing and speech centers while a few others are in schools for deaf children. It would be a great service for deaf children and their parents if hearing and speech centers in general would accept this responsibility and activate programs which would reach out to identify deaf infants in their geographic regions and provide training for the family on the management of the child in the home.

McConnell and Horton's (1970) study, and other demonstration home programs around the country, have indicated that parents can be trained to function as teachers in the early development of their deaf children. The study by Meadow (1968) indicated that deaf parents are able to play a vital role in their deaf children's development without any outside help from professional personnel in the field. What both studies indicate is that early intervention through the parents is one of our best hopes for future improvement in the development of the

child who is deaf, and that parents, in many instances, are perfectly capable of becoming successful teachers of their children. In order to provide parents with the skills to function adequately in that role, the audiologist or some new type of specialist must have the proper background of training and experience, and hearing and speech centers should become focal points for such programs. Hearing and speech centers and hearing and speech personnel have had too narrow a concern, in many cases, with the processes and disorders of speech and hearing, and too little concern often with the child and his family. It is in the area of the family, that such centers and personnel could make a significant contribution in the future.

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Discussion

FLOWER: I was very interested in several of the things you were reporting and agree that the Meadow study is one that requires a great deal of thought. I think there are two emphases that have been placed on it. One is the notion that the child is better accepted by the deaf parents hence the better achievement among deaf children of deaf parents. On the other hand you note that by the nature of the situation, they are getting earlier instruction in a system of communication. I don't like to put anybody on the spot but I wondered if Dr. Sherman would be willing to comment as a behavior modifier. From the standpoint of behavior modification, do you see anything different in the deaf parent working with a deaf child?

SHERMAN: Yes, But I will make a couple of comments. Basically, in the study described, you have a correlation. No matter what kind of behavioral measure you want to take, whether it is a measure of the child's social adjustment or language skills, you have a correlation between those measures and whether the parent of the child is deaf or whether the parent is hearing. It seems likely that, if you are ingenious enough, you could probably find maybe a thousand things on which hearing and deaf parents differ -- on personality dimensions, on the way they handle the child, and on the way they interact with the child. No matter how carefully you're matching groups you're going to find some differences. If the children of one type of parent do better than the children of another type of parent, the question then becomes, what is the crucial difference in the parents, if any? Is it because one kind of parent accepts their children more than the other? Is that the crucial difference, or is there some other crucial difference out of the many differences that exist? Now, the emphasis in the study is that there are differences between these two groups of parents, and it seems likely that one of those differences must account for the better social adjustment and the better language skills of the child of deaf parents. At one level, it is a reasonable starting hypothesis. But you still have the problem of which difference makes the difference. In my opinion, the only way of systematically approaching the problem is to take a deaf child, let's say of a hearing parent, and expose him to those conditions which you suspect are functional in producing better language skills and see whether his language skills are better than those of a child, or group of children, who were comparable to begin with but who weren't exposed to these conditions. Is that in the general ballpark?

FLOWER: Yes, but is there some reason why the deaf parent is a more effective behavior modifier than the hearing parent, other than these things we've mentioned?

SHERMAN: I really don't know. The first approach that I would take is simply to observe what deaf parents do in terms of teaching their children to "communicate" on whatever level you're talking about. I would simply observe what do they do. What do they present to the children as tasks? What kinds of consequences, if any, do they deliver to the children? On this basis, I'd begin to form some ideas about what a training procedure would consist of for a deaf child. I would obviously subject my notions to some sort of experimental verification. That is, I would want to have a measurement system for the language skills of a deaf child. I would then attempt to put various training procedures into effect and observe what happened to the child's behavior. I would then remove those training procedures and see whether you stopped getting as much language gain, and then I would put those training procedures back into effect to see if language skills again increased. As a result of this I would develop a sequence of procedures which empirically, at least, appeared to result in gains in language skills. I'm just stating an approach that I would take. I'm not stating what I think it is about deaf parents that might make them more effective behavior modifiers. I'm really suggesting how I would go about looking for what makes them more effective behavior modifiers, if, in fact, they are.

QUIGLEY: Am I suppose to respond to it? Now Meadow interpreted her findings by attributing the difference to the manual communication that the parents had with the deaf child, but there are a lot of other ways in which you could interpret that study. As it was pointed out, there could be a whole variety of factors in

which the two types of parents differed. Might be that just the factor of acceptance of the deafness, not being traumatized by it, working with the child in any systematic way from early infancy would work out as well as manual communication. But I think you do have to be a little careful about the interpretation of it. She has a right to interpret it as she did, but other people might wish to interpret it somewhat differently. I don't know about the operant conditioning: I'm not much of a believer in behavior modification through operant conditioning. I think man is a rational animal not a conditioned one; but it is big on our campus through Bijou, Engleman, Becker and some others, and I've had a doctoral student do a thesis on it, but I couldn't comment on it because I don't have much belief in it. How you would apply it to working with deaf children through their parent? You could. It's a mechanical enough device for learning that it could be applied fairly readily.

SHERMAN: I think your characterization of operant conditioning is fair. In my opinion, that's the exact beauty of it, its mechanical nature. I would prefer to call it systematic and programatic, but we can have a semantic difference. However, I would maintain that it's exactly that characteristic about operant conditioning - its systematic nature - which allows you to use it effectively to teach parents to teach their children. I think that whether one believes in operant conditioning methods is a slightly misunderstood issue. I have a belief in these methods in a certain sense, but my belief is empirically based. I do have a belief in measurement of behavior as a valid way of approaching abnormal human problem behaviors. That's really the belief stage of the game. But given that belief, I am now willing to explore any techinque which will make reliable changes in those behavioral measurements. It so happens that I use operant conditioning procedures simply because I have found very often that they are effective. On the other hand, I'm willing to accept a variety of procedures which are not typically thought of as operant conditioning procedures, if they are effective. There has been a number of very promising procedures suggested by others during the short course. Some of them involve manipulation of the stimulus condition antecedent to behavior and some involve mechanical rearrangements of the environment. As far as I am concerned, they are perfectly valid procedures as long as you're producing reliable changes in the problem behavior. So I don't think it's a matter of belief in the methods of operant conditioning or behavior modification. It's a belief in methods of therapy which produce measurable changes in problem behaviors.

FLOWER: You can find no better evidence of the need for a more orderly look at the things we have been discussing than the two studies you mentioned. Although both should be reckoned with, we can't really say how clinicians should behave differently because of the results of these studies. As you say, the area remains open for discussion.

QUIGLEY: Well, I don't know what the actual factors were that led to the greater achievement on the part of deaf children of deaf parents. I personally would accept Meadow's interpretation, but recognize that it is open to many others. But the difference that was found, two years in reading level for a deaf child, is an awful lot. If you've ever worked with deaf children you'll realize that. The best normative data we have on deaf children and reading ability was a study done by three people in New York (ref) on standardizing the Metropolitan Achievement Tests with deaf children. They found that, between the ages of eleven and sixteen, the reading level of deaf children from schools and classes around the country, went from grade 2.7 to grade 3.5. That's eight-tenths of a grade in five years. So a difference of two years is a whopping difference. It's something you'll get in ten years of teaching. I said six to be conservative, because I think that at certain age levels you'll get a difference of about a third of a grade. Now that difference is large enough so that I think some real attention should be paid to the study. What application you would make of it I think would depend upon your interpretation of it. I would have the parents use manual communication with the child - that is the way I would interpret it.

FLOWER: The sad part about it is, I think, this was an answerable question to begin with and it's too bad that it has remained unanswered. Of course, it is still an answerable question.

ALLMOND: I'm not having as much trouble with the Meadow study as I am with the prior McConnell and Horton study. I like the conclusions very much. I'm not sure that they got there in the most appropriate way or that the conclusions can be derived from the study itself. I am concerned that there were no controls for the study so that we don't know what's happening in this particular study to deaf children who are not exposed to this experience for the three-year period. The other thing which I found very interesting about the McConnell and Horton study is that of the 94 children which they started with they ended up with only 28 over the three-year period. And aside from this being a

rather confusing variable in the study itself, I'm wondering if this obtains in the population of the deaf at large. Is there difficulty in maintaining a three-year contact with deaf children in any kind of an instructional program, and is this indeed a very real stumbling point for all of you people who are involved with speech and hearing problems: is this a specific variable which could be looked at in and of itself? How come only 24 or 28 out of 94?

QUIGLEY: Well, I would agree with your reservations about the study. I have many myself, primarily in that from the data they gave on hearing threshold level I would doubt that these were deaf children to begin with: certainly the aided threshold levels initially of 48 decibels. I've got a hearing loss that severe and I wouldn't consider myself to be particularly deaf but I brought it out for two reasons. One, I think the study is going to be overgeneralized. In fact, the authors themselves have done so. They stated in their conclusion that this is what should be done with deaf children, when they really were probably not dealing with deaf children at all. I wasn't so much concerned about the fact they lost a lot of the kids—that's inevitable in that kind of research but what could be done to keep the parents coming on a regular basis certainly is a matter for concern. They were dealing with children from all over Tennessee and several other states so that simple distance very likely was one factor. But I combined it and the Meadows study, which are quite opposite in philosophy, to point out that it's the early intervention that we have to accomplish with deaf children. Language is developed for a hearing child by the time he's four years of age. By then he has all the syntactic structure of his language. He'll elaborate a little bit from there on, but he knows how to use adverbs, though he doesn't know what adverbs are—all that grammar in school does is give him a name for it. But those first three or four years is where we have to get at deaf children. The schools cannot get at them. They don't have the mechanism, and I think that the one institution that can do it is the hearing and speech center, and I think that they should be looking at this. I think in order to do it they're either going to have to train an audiologist differently or they're going to have to train some kind of a specialist to work with very young deaf children, because it's not a simple downward extension of the existing teaching techniques by any means. It's a whole different kind of operation.

FLOWER: There is another very important factor which we haven't mentioned in the discussion thus far at this meeting. Here I speak as an administrator. By and large, the speech and hearing center is geared to relatively limited care. The financial base of operation, and particularly for audiology services, centers on diagnostic services. What you are suggesting requires a whole new level of support. One of the reasons why many audiology clinics have not functioned as effectively as they should relates to the cost of providing these services.

QUIGLEY: I wouldn't be overly concerned about that. I'm a member of the National Advisory Committee on the Education of the Deaf which advises the secretary of HEW about programs and the education of the deaf. When that early childhood bill was first written, it was not written by our committee, it was written by the Advisory Committee to the Bureau of Education for the Handicapped. When they first wrote that bill, they had extended only to the age of three and we were given advance notice of the bill. When we saw this, we had the age taken out, so that it can go down to infancy. The mechanism exists through that act for the funding of such programs.

BANGS: Could I speak to that question? Closely allied to the question is the Early Childhood Development Assistant Act which was signed by the President in the Fall of 1968. It provided monies for planning and operational grants which will produce model programs for handicapped children, ages birth through third grade. Of importance is the fact that this act has introduced into special education a national shift of emphasis from the handicapping condition of the child to his educational needs. There is no question that speech and hearing clinics have been pioneers in developing educationally oriented programs for pre-school handicapped children. Many of these clinics have assisted the child at birth, and have involved families in a variety of ingenious ways.

I believe it is time that university departments of Education and Special Education also take a look at the needs of these pre-school handicapped children, and develop curriculums that follow an outline similar to the one I have on the blackboard. You will observe that the first four years (or more), are concerned with teaching the regular classroom teacher. You will note, however, that the course content is quite different than that represented in most College of Education degree plans: e.g. linguistics; phonology, semantics and syntax; psychology; behavior modification, learning theory; etc. Now, if one of these teachers desired to go on into special education, she would take a fifth, possibly a sixth, year, of on-the job-training plus course work. With the basic teaching background and her practical experience with handicapped children, irrespective of their labels, she

would be graduated with a one-level teaching certificate. If her foundation was adequate, she could teach most any child irrespective or his handicap. . . keeping in mind the shift of emphasis from the handicapping condition to the educational needs of the child.

What I am hoping for is a one level certification which will qualify teachers to train children irrespective of their handicap. Except in rare instances, it can be done. There will no longer, then, be a need for certified teachers of the hearing impaired (I dislike the term deaf), teachers of the orthopedically handicapped, teachers of the multiply handicapped, etc. Furthermore, I am not concerned with who certifies these teachers. It may be state departments or it may be one or more of a number of university departments; i.e. Education, Speech Pathology-Audiology, Psychology. This, of course, means a cooperative inter-play among university departments that is not always in existence today.

So, in response to your question; yes, I do think Speech and Hearing Clinics will continue to carry the ball until they can promote genuine interest among other professions.

QUIGLEY: I think it's more than a matter, though, of having the teachers trained. I agree with your idea of training a particular specialist. I don't think the audiologist training can be expanded to include this or certainly should be expanded somewhat because it's pretty narrow as it is. But there is a good deal of talk about the elimination of differences among the various types of handicaps and I think this is a myth. There really isn't any such thing as special education other than in an administrative sense. I work in a Department of Special Education. It's only an area in an administrative sense, that's all. There is no relationship basically among the different types of handicaps. But there are some people on our campus, Bijou, for one, who feels that through the application of operant conditioning that you can train all kinds of kids alike. You don't need to have specialists on the deaf and the handicapped and the emotionally disturbed and so on. He feels that the techniques of operant conditioning are applicable across the board, and that all you would have to require beyond this perhaps would be programming of language for deaf children. I don't agree with it. It's a passing fad at the moment, to say that we're not going to call kids deaf or retarded or anything else as though the label really makes that much difference. I don't think it's going to come about, although there are many people who would agree with you and there are some on our own campus who do.

BANGS: You don't think the label makes any difference?

QUIGLEY: Well, I know it's not good for them to use the term deaf anymore, we are not supposed to refer to these children as being hearing impaired. That has a lot of problems associated with it, because you're then lumping together under one label children who differ radically not only in their degree of hearing impairment but in the behavioral effects of it. Hearing threshold is a continuum, I agree. But somewhere along that continuum a person ceases to be linked to the world primarily by his ears and becomes linked to it by his eyes. Now where that point is, is a matter of debate; but it exists. And once you've crossed that you're not talking about a difference of degree any more, you're talking about a difference in kind.

FLOWER: I think an even more important point, however, is that "deafness" implies that reduced hearing sensitivity is the dominant disability; but many youngsters we're working with these days have a whole spectrum of disabilities. Generalizing about "the deaf" as though they represent a single entity is extremely precarious.

BANGS: I have, I think, a pertinent comment here. As one reads the research literature on the academic achievement of the deaf, he finds it is most often concerned with deaf children educated in schools for the deaf by "deaf education methods." How often do you read in the literature about children who by audiometric and educational definition are deaf, but who have achieved academically and socially on grade level? I have not read many. We have such a study under way at the Houston Speech and Hearing Center. In the study we have approximately thirty children who received preschool training at our clinic which utilizes a natural language approach to teaching. These children are currently achieving in normal classrooms in the basic subjects of reading and arithmetic. I mention this study not because of the success story, but because there are still many disbelievers. We have submitted a manuscript twice for publication consideration and have had it rejected twice. In general the editors stated, "It is common knowledge that deaf children will not achieve on grade level through senior high school." So, we will continue the reassessments in our longitudinal study and submit another manuscript at a later date. We think the children will graduate in a regular curriculum. Who will be right? We've got to wait until they're through junior high school, but I think the studies have all been geared toward deaf education.

QUIGLEY: No, that's not really so. I would like to see your study, by the way; I would very much like to have

a copy of it. But the whole education philosophy in working with deaf children for the last 20 or 30 years has been the idea of integrating them within the regular school system. That's why day classes have expanded so rapidly. You know, 50 per cent of hearing impaired children are in day classes now. Only half of them, I think somewhat less than half of them, are now in residential schools. Now that's a radical change in the last 30 years. It used to be about 80, 90 percent in residential schools and 10 or 20 in what were then day schools rather than day classes. The whole philosophy has been geared to doing just whay you say, and it's been rather unsuccessful. Although I agree very much myself with the philosophy, I think it's the only reasonable philosophy to have, the success of it, in my knowledge, like I said, has not been very great. But I would very much like to see your study. Now maybe if we were getting at these kids early enough, you know, if you were getting them by the time they were a year old and working with them, sure it's possible. But you must allow us who work with deaf children to be a little cautious because we have some sweeping enthusiasm thrust upon us every other year or so. It was oralism, manualism, general amplification, low frequency amplification, verbal-tonal audiometry, frequency compression and transposition, each one of these was going to eliminate all of our problems and it hasn't yet eliminated anything. So we are a little cautious when a new panacea enters upon the scene.

ALLMOND: I'm a little concerned. What's happened to the family? Where did they all go?

BANGS: I think the family is very close at hand. If you believe in starting training of children from birth (if feasible), then the family must become involved unless you are thinking of residential care.

QUIGLEY: I think you're right. But I still maintain that since language and communication is a process of continuous development, the only people who have this contact with the child during his first three or four years are the family. And you can teach a parent, you can train a parent to teach that child, it's not that difficult. It requires an awful lot of patience, an awful lot of time and whether or not the parents can give this time away from their other duties, I think is probably a major difficulty. But the family is not far away. They have to be the key, I think, in working with very young deaf children.

SHERMAN: Exactly what would you like to see the family teach the child? How does a family member teach the child, and possibly more important, how do you know that it's doing any good? What kind of feedback systems do you envision so that you will know that what you're doing is effective, and how do you break down the components to know that they are effective?

QUIGLEY: Well, I think this is one area in which operant conditioning has some merit. I'm saying it seriously, it really has provided a means whereby a task can be broken down into manipulable parts and the effects of these studied, and they can do this in a very systematic way. I think there would be some real applications to this to working with the families of the deaf child. My reaction against it is simply that I feel that man is a rational being and not a conditioned one.

BANGS: I'd like to speak to your question. Many of us who are working with pre-school hearing impaired children, or any handicapped children, have developed a battery of tests that purport to measure language and learning skills. Periodic re-assessments tell us whether or not a child has moved, for example, from the baseline of babbling to jargon, to echolalia or to the semantic level.

SHERMAN: I guess I wanted more specific information. Earlier, manuals for parents and a correspondence course were mentioned. That really interested me because if you can do it by mail and produce quantifiable results then it would seem that you have developed a very powerful and practical teaching tool. What do you teach parents to do, how do you evaluate whether they are doing it, and how do you evaluate whether it's having an effect on the child? You have already mentioned some of the methods to evaluate whether the child's behavior is changed.

BANGS: We attempt to assess our behavioral objectives. If we are starting with a basic comprehension vocabulary of phrases, e.g. "pick it up." "close it," "give it to me," "throw it away," then we use our specifically designed assessment tools to demonstrate if the child does comprehend these phrases in a functional environment.

SHERMAN: That implies control conditions-that the child wouldn't have done it unless you used these special training procedures.

QUIGELY: That, though, is so obvious in working with a deaf child that I don't worry too much about the lack of controls in the McConnell and Horton study because we know enough about how little a deaf child has when he's three, four, five years old, is nothing, probably his

name, maybe. He doesn't have anything, usually, so that the difference when he goes through some kind of training program is so glaring that controls are, well, I don't think they are of any real relevance.

ALLMOND: , Well, my own feeling is that it doesn't excuse the lack of controls with the Horton study.

My Listener

Lee E. Travis

May I be allowed to take a glance at our theme from the top of a high mountain rather than walk in the bottoms of the canyons? May I be excused from laboratory precision in my utterances and instead be allowed great expanse of imagination, even poetic license?

You have heard me ever since I was born
My birth cry and my babbling
My first word and my first sentence
And that you have listened determined
that I have spoken

As my listener you are the soil for the
growth of my words
I would not have them fall upon the barren
rocks of your unconcern
Or into the noisy circuits of your distraction
It does not matter only that I speak
It matters too that you listen

May I look at our contemporary family scene through a telescope and allow others the use of a microscope?

Since the beginning man has reflected upon the meaning of his life. At one period in his thinking about himself he believed that he was governed by immutable laws and in the next by chance. In one period angels delivered him to earth and in the following time he was a planetary waif born of meaningless and ever altering chemistry. One time God made man and the next time man made God. Century after century man studies himself, draws conclusions and makes plans only to change his mind and his behavior the next time around. One century he was a reactive creature, the victim of control by stimuli supplies by his inside and by his outside. His eyes, ears and nose moved him about in competition or in collaboration with an ache or a pain or a need. He was the pawn of his sense organs. More currently man is viewed as being ordered by a control center within, a center that alerts not only the responding system to action but the receiving system to receive. Both the responding and the receiving are to acquire a supply of stimuli to serve the organism. Mainly this central regulatory system maneuvers the organism so as to place the sense organs into position to register stimuli. Possibly all that man ever does is to seek stimulation and not at all, expression. Man is mainly a searching and not a reacting organism, seeking always for food-stuff, from his acceptance by another to the delicacies of the banquet table. He moves his receptors around in his environment that they might in their intake quench his thirst for realization. Man is most likely a realizing and not a reacting organism. Instead of SOR (stimulus, organism, response) we have ORS (organism, response, stimulus).

Although one searches far and wide for answers to his meaning, he searches mainly for another's appraisal. Constantly he reaches out in all ways, but especially in speech, for a message of how he is standing with another. I ask, is my life in your keeping? Is it in your safe keeping? Or must I be afraid? With inanimate nature, and to a large degree with living animals, I can be objective and view the thing or the animal as an object. I have a sovereign independence from the whole objective world opposing me and I can treat it essentially as I will; measure it, alter it, even destroy it. The substantial world has no share in my experiences. It is experienced by me, but it has no concern in the matte.

But out there too, I encounter you and never again will I be unexperienced. Now I will have to share me with you. I have an awareness of being in the world of you and me, in a shared world, and I wonder about us. You seem as irrevocably welded to your position as I am to mine. You cannot shed your skin and I cannot shed mine. Existence now becomes completely coexistence and I exist only in communication with you, the other one of us. The world has two centers, yours and mine, two seeing points, your view and my view; and right here there exists the bases for all the crises of human existence. You and I alike will claim to be the correct center of the universe, and coexistence will become not necessarily a peaceful juxtaposition.

I go about in the world transmitting signals to you, the other one. This is practically half of what I do during my entire earthly existence. I make sounds to you, I motion to you, I hold you, I let you go, I come to you, I leave you. My speech and my gestures and my coming and my going are my signals. *Constantly I tell you about us. That's all I have to tell you, is about us.*

My transmitting is unique. It is different. No other one transmits quite like I do. This will always cause us trouble, and we will spend about half of our lives trying to handle this trouble.

Also I go about the world receiving your signals. This is practically all I do the other half of my earthly existence. So practically my entire lifetime is occupied with transmitting signals to you and receiving signals from you. And also my receiving is unique. It is different. No other one receives quite like I do. This also will cause us both trouble, and we will spend the most of the rest of our lives trying to handle this trouble.

So my life and its troubles will concern themselves practically entirely with communicating with you, my unique other one.

When any one speaks, not only by what he says, but also by the way he says it, he defines a relationship with his listener. The listener may accept the speaker's definition or counter with his own. In talking now I am defining you as the student and me as the teacher. I am defining the relationship. Yet you as the listener can also control the definition of our relationship because you did invite me here to speak and you are now letting me speak.

Some sort of relationship is inevitable whenever two people meet. All verbal messages between them are not only reports but also manipulations and commands. A patient may say that he cannot make a decision. By saying this he is not only reporting but he is also conveying an order for the therapist to tell him what to do. As Jay Haley so aptly expresses it, the patient communicates at two levels: "Tell me what to do" and "obey my command to tell me what to do." The helpless person, as well as the authoritative one, may determine the other person's behavior.

Communicative behavior which defines a relationship may be symmetrical or complimentary. If it is symmetrical, the two people exchange the same kind of messages. Each person will command, reject or acquiesce on an equal basis with the other. "You are mean", "so are you"; "I don't care", "neither do I"; "What you can do, I can do better". These are messages of competition between the two people; messages of combat, defeat and victory. The people may help each other a little, but the real game is who will be the boss and who will be the slave, who will win and who will lose. In society at large he who plays this game may be too insensitive to the welfare of others. Union Oil, the Land Developer, the Pharmaceutical House, the Political Dictator, all come quickly to mind. And this game is far too popular in the American home: spare the rod and spoil the child comes down from ancient times.

If the relationship is complimentary the two people will exchange different types of behavior. One gives and the other receives, one leads and the other follows. They alternate creatively in bossing and serving, and in taking turns in all of the chores of the household: cleaning, washing, baby tending, marketing, and making and spending money.

These two types of relationships denote a simple scheme of interaction between people and may be considered normal. May I point out, however, that a crucial aspect of a symptom is the advantage it may give the patient in determining what is to happen between him and others. And further, may I declare that a symptom is not only a way to deal with others but it is also a part of an arrangement worked out in implicit collaboration with those very same others. Possibly always someone else joined the patient in the creation of the illness.

I do not think that it is pathological to control a relationship, either all the time or just part of the time. If relationships are open and honest, and mutually understood, all may be well. But when one person tries to control another person while all the time denying it, then such a person is advertising his illness. When a child by his stuttering circumscribes his mother's living while denying that he is doing so, he is exhibiting symptomatic behavior. If the stuttering child knows or admits that he is annoying his mother in the face of her attempts to help him, then he is just a stubborn bullheaded lad. But if he feels that he is controlling the family by behavior over which he has no hold and no choice and no responsibility he is a troubled boy. And the family should know this. And they should know too how much of his trouble is organic and intrapsychic, and how much is functional and interpersonal. Maybe he does not have sufficient cerebral dominance, either perceptual or motor, and cannot therefore, willfully control his stuttering behavior. Maybe he has the soil for inverbalized and unspeakable thoughts and feelings derived from the tumultuous interpersonal relationships of an earlier day. Regardless of neurology or intrapsychic forces the stutterer and his listener must get along. They must live conjointly.

May I repeat something here that I have said before: "To understand my speech it is necessary not only to understand my speech organs but to understand *me*, the speaker, in relation to *you*, the listener. Neither my

speech organs nor I, nor you, have any separatistic significance. . . I know that every listener originates what he hears. I know that each one of you as my other one lives his own particular hermit's existence. I know that you will live *my* words in *your* own way that is not like any one else's way, including my own way. When I speak *my* words I live *my* words and when you hear *my* words you will live them too as *your* words, meaning assuredly that all language spoken or written is always given away forever in becoming another's creation. . . I can talk well only in living you close to my heart. I can make speech sounds well or poorly only in terms of my living of you. If, in the beginning, I could not live you as a safe one, and as a loving one, I might not talk at all, or clearly, or fluently, then, or even now. I have a beautiful and pleasing voice or a harsh and unpleasant one, depending partially at least on how it is with you and me. I may have great flexibility in volume and pitch if all is well with us. If I could not kiss you or bite you, taste you or smell you, inhale you or blow you away, swallow you or spit you out, I might not be able to talk to you well, if at all, with my lips and teeth and tongue and breath. I live you and my speech organs together in talking to you. To change my talking I must change my living of you and my body together. . . for me to talk to you perfectly, I must live you perfectly, perfectly in trust and love. Mainly it is not for me to know the cause and nature of my talking trouble, but mainly it is for me to mend the strands of love between us two. . ."

Not always have people thought this way. They have treated the speaker and ignored the listener; they have treated them as though they were separate. The speaker and his listener must be treated together. One just has no significance without the other. Not only might a listener feel better in the atmosphere of an improvement in the speaker's speech but he might feel worse because he too was gaining satisfaction from the speech trouble.

Speech pathology in the individual is a product of the way he deals with the intimate relations between him and others, and between those others. In dealing with a speech defective child the whole family system must change before he can change. Speech pathology is the product of power struggles between members of a family as well as the product of the power struggles between conflicting feelings within the child. Probably external conflicts induce inner ones which reflect them. Reality as well as fantasy is related to trouble.

To handle a speech defective child one must alter responses of the members of the family to his child and to each other. May we shift our gaze from the panorama below to see the scene from a slightly different angle. And do we see an ordered structure for the organization of interpersonal behavior that will hold for all different types of groups including the nuclear family? Apparently we see a circumplex (round network) structure around two orthogonal axes of dominance-submission and affection-hostility. Each axis is a continuum. For the dominance-submission axis one extreme or pole is self-confidence, assertion and achievement, and the other is passivity, submissiveness and acquiescence. For the affection-hostility axis one extreme is warmth, friendliness, kindness and love, while the other extreme is criticism, negativism, anger, and hate. An interpersonal act or feeling is to establish the person with himself and with another. The dominance-submission axis defines the degree of acceptance or rejection of the self, while the affection-hostility axis defines the degree of acceptance or rejection of the other. If I dominate you, I think more of me than I do of you. If I submit to you, I think more of you than I do of me. If I love you, I love you; and if I hate you, I hate you. The chances are that if I love me, I love you; and that if I hate me, I hate you. The ideal feelings toward others and toward the self would place the person at the love end of the affection-hostility axis and at dead center on the dominance-submission axis. The second commandment would express perfectly these positions. . . love thy neighbor as thyself.

Today's society complains bitterly about the rebellion of its youth and the defiance of law and order. Parents and teachers alike voice their concern about the current popularity of non-conformity and disobedience. Always there has been the problem of individualism and the acceptance of authority. Utopia will come when the apparently contradictory aspirations of a culture are reconciled. In the meantime, what do we do? How do we impose the burdens of a civilized life in a reasonable and tolerable way? What is the true relation between the ends of living and the conduct of the person in achieving these ends? The assumption may be sound that the consequences of purely individual behavior are frequently too serious to be permitted. We may assume, further, then that the child's immaturity in both understanding and in conduct-control will demand some degree and kind of restraint, some substitution of the adult's guidance and control for the child's self-direction.

Probably dependence reactions have an innate basis. Certainly they have an experiential one. For each of us, authority at first is mainly benign and friendly. And when we love we identify with the loved one. Our compliance with the authority who is loved does not become self-abasement or a personal loss. Rather, yielding to a beloved authority shows the way to the attainment of enduring purposes and values. Discipline becomes a form of discipleship. But from the very first

also, both innately and culturely considered, resistance to authority appears. Deprivations are inevitable: and dissatisfactions, displeasure, and anger arise. As compliance and resistance polarize, so do love and hate. But as different as they are however, they spring from the same source, the dependence of the child's life upon an authority figure. How this dependence is handled determines the child's personality and character for all time.

In a true sense, man is born separate and alienated and acquires *twoing*. Prior to the rule of society was the rule of self apart. All encounters are with a non-self. And the overwhelmingly important non-self is another person. Not only is every one born separate and apart, but every human being is born the enemy of all others, to fight to the death if need be for his very existence. Split as we are by our fluctuating partisanship to love and to hate, we live an eternal wrestling match with each other. To hate is in some way to love. Quite easily actually, we may pass from angry rage to tender affection.

The child who would speak at all or better, must learn first that he is loved in order that he can risk tell-tale words. He must learn to label his experiences. He must talk about them and be heard. What is not labeled and verbalized in the early years cannot well be reported later. Only shadows and echoes of uncommunicated early and deep feelings can occur later on.

Speech is the great compromise between the need to be heard and the purity of heart to risk it.

The Role of the Family in Aphasia:

Martha Taylor Sarno, M.A. *New York University*

You are 54 years old. Last month on the way back from the U. of T. class of 1940 reunion dinner, you and your wife discussed how hard it was to believe that so many years had passed - so many milestones reached - both of you noticed how tired and old some of your classmates looked. You were shocked to learn that the chap you remembered as the Big Man on Campus didn't make it to the dinner because he was in the hospital for observation after a second coronary. He was always the most athletic of the group but your buddies say that of recent years he had gained a good deal of weight - probably a result of two martini business lunches. Old Doc Chambers, you learned, passed away quietly in his sleep at the age of 82 - he worked for two hours at his office that morning.

Both of you took comfort in the fact that you were in good health, happy, and had a good life together. Now you were living in a style which thirty years ago seemed out of reach. Except for Connie's last year at college coming up you had put both children through school and they were well launched. You waited for what seemed like a long time to reach your present position as Assistant Vice President of the Company but at Acme it was unusual to reach that post at 54. Maybe it was extravagant last year to go to Europe and to buy such an expensive car but after all a $50,000 nest-egg is a good cushion and you had no large debts except monthly car payments and the mortgage. You were glad that Betty stopped working a year after your marriage. Somehow you didn't like the idea of *your* wife working and you can remember how upset you were when Connie had her tenth birthday and Betty said she was considering going back to teaching. But eleven years had passed since she last worked and she'd have to go back to school for some credits before she'd be eligible to teach again. You were relieved when you talked her out of it.

It's all history now - and you wouldn't remember it all except if reminded. The only important thing to you at this moment is yourself and the nightmare you're experiencing.

Three weeks ago you had a stroke - you don't really remember the details. All you're aware of now is that you can't make yourself understood - not even to Betty - and your right arm and leg don't move. You've also noticed that you laugh much more easily than before and you cry a lot, sometimes without apparent provocation. And once you start, you can't stop easily. On some occasions it turns off as quickly as it turned on. It is as though tears would well up without any real reason. You can't understand it. You certainly feel like a different person. It must be happening to somebody else - not you.

It seems unreal, but at least you're sure that it's just temporary. One morning you'll wake up talking and your limbs will move. The physical therapist will take the sandbags and footboard away and she'll help you out of bed. You'll be weak at first but it won't be long before you'll be your old self again and you'll remember it as a horrible dream; especially today with modern medical techniques.

It's a blessing that nature helps you to deny. For if you knew the facts you might not have laughed with Betty last night when she visited over the distorted way in which you pronounced her name. If you knew the truth about the months and years that lay ahead you would become paralyzed with fear and be utterly despondent.

One could make some obvious predictions of our hypothetical patient on the basis of the little we know of his pre-illness personality, social history, and life style. Our patient was a college-educated, high achiever, and must, therefore, have been dependent to a great degree on verbal skills. We know that he represented what many consider the "American ideal." That is, he was married with two children, lived in an expensive home, was a high income earner, had put away capital for his future, was healthy, and enjoyed good taste in travel and general life style.

He assumed the role of the man and exclusive provider of the family as it seemed appropriate for his age group, and his sole problems in this area were conditioned by social expectations militating against his wife working. This may have led to some unconscious ambivalence and covert conflict. Yet both assumed their roles as man and wife without any great difficulty. We don't know what deep seated emotional conflicts Betty may have suffered in view of the denial of her desire to return to work.

After the stroke one would expect some severe conflicts and confrontations revolving around the need for role reversal in this particular family constellation. The once strong man of the house, now disabled, would have to assume a more dependent role. His wife would be forced to take on more of the decision making than previously, and would be obliged to assume a role of greater independence and assertion. In view of their history, one might expect that she would enjoy her new-found role and this could lead to temporary liability in family relationships due to a reversal of previously established ascendancy – submissiveness patterns. One study has dealt specifically with the effects in a marriage of aphasia in one of the partners (1).

The family had enjoyed a relatively high economic standard during the patient's years of good health. Since he is not eligible for retirement pension or Medicare benefits because of age, there would necessarily be some immediate changes in the family's economic status. His company, depending upon its size and benevolence, might carry him for a year or so waiting to see what the outcome of his rehabilitation course might be. At the end of that time, he would undoubtedly be retired on a limited pension and his wife would probably return to work in order to supplement his now limited income. It is doubtful that our patient would ever accept working at a lower level. Methods would have to be found to keep him occupied for the remainder of his life in some useful non-verbal activities which might not only give some meaning to his life but would help to drain some of the anxiety and depression which will plague him indefinitely.

If our hypothetical patient is fortunate he will recover completely within the next few days. If this is to be, he has probably already shown signs of recovering function - physically, emotionally, and in language. For the period of spontaneous recovery is most dramatic during the first few weeks. Indeed, one recent study reports that most improvement in language takes place in the first month post-CVA (2).

But if our patient is less fortunate, he will be left with residual deficits - all of which will place significant limitations on his ability to lead a normal life. More important, perhaps, no matter how mild or severe his real limitations might be, the majority of stroke patients with residual dysfunction suffer overwhelming feelings of loss, alienation, and anxiety. These can be of such intensity that they stand in the way of the patient realizing his potential level of function or arriving at a satisfactory level of adjustment to his deficits and self-acceptance.

The broad spectrum of symptoms secondary to stroke can be classified into four major categories: physical, intellectual, emotional, and verbal impairments. Let's quickly review some of the more common residuals:

The physical symptoms can include weakness or paralysis of one side of the body (hemiplegia), loss of balance (ataxia), deficits of sensation, particularly position sense, visual field defects, double vision, blindness of one eye, nystagmus, facial weakness or paralysis. Any of these might affect the patient's ability to ambulate, to feed, dress, or toilet himself, and to move rapidly. He may fatigue easily, may have changed taste for food and drink, may experience pain in the hemiplegic arm and leg, may suffer seizures, and have bladder and bowel incontinence.

The intellectual deficits associated with stroke include deficits in abstract thinking, judgment, losses in immediate, recent, or even remote memory, orientation for time, place, and person, and deficiencies in perception. The personality changes characteristic of stroke include depression, agitation, denial, anxiety, fear, inability to endure frustration, impulsivity, childish behavior, lability, aggression, and deficits in attention. Perhaps the most important of all is the alteration of self image colored by a sense of loss akin to grief which the stroke victim suffers.

The communication disorders are well known to you: aphasia with its characteristic impairments of deficits in vocabulary and syntax; verbal apraxia with its manifestations of slow, labored, and misarticulated speech; and dysarthria manifested in any or all of the acoustic parameters of speech.

The impact of these changes on the patient and his family cannot be overemphasized. They have been well described and highlighted in personal accounts by stroke victims (3,4,5). As speech pathologists, we are committed to the diagnosis and treatment of aphasia and have accepted a professional responsibility for participating in the identification of these symptoms and their management. It is not a small or simple task. But it is much less stressful, burdensome, or heartbreaking to us than to the patient's family who must now constantly define the environment for the patient and live with his problems for the remainder of

his life. Theirs is a lifetime role, and, as such, takes on much greater importance than our detailed fascination with the curious phenomena that characterize asphasia, the type of rehabilitation therapies applied, and the test scores the patient achieves.

Most of the literature focuses on the patient's, rather than the families', reactions (1). Yet, virtually all clinicians who have reported on the management of stroke patients with communication disorders have also stressed the importance of the family's contribution to the rehabilitation process, and have recommended that family contacts, support, and education should be an integral part of the speech pathologist's role (6,7,8,9,10,11).

Douglass stressed the role of the family by stating: "of no less importance in the therapeutic program is the education of the immediate family whose cooperation must be obtained. This is especially so when the family constellation reacts to the patient's limitations with frank hostility or by an overprotective attitude. This is not an infrequent occurrence when the aphasic disturbance is not correctly understood and is thought of as general mental deterioration. Often well-intentioned but misguided efforts made to assist the patient prove to be a real detriment because demands are made of him at a level to which it is impossible for him to respond adequately. The result can only be further withdrawal, social impoverishment, and isolation of the patient and reluctance to even attempt to fulfill a useful role in society" (12).

Counselling has been suggested by many as the means for reducing the destructive effects of unfavorable attitudes on the family's part (6,8,10). Concern for the family's role is also manifest in the number of publications which have appeared in the last two decades written specifically for increasing family understanding (11,13,14,15).

One of the first published reports of a formal program designed to help the family of the aphasic patient was based on work done at our Institute and published in 1952. This group discussion program, now in its eighteenth year, has been considered an important part of the total rehabilitation efforts provided for stroke patients. The primary purpose of the group is to educate and orient families of aphasic patients as to the nature of stroke and aphasia. Further, to clarify the nature of the rehabilitation process and in so doing to help them improve their emotional adjustment and acceptance of the patient and his disability (16).

The group meets once weekly and is led by a psychiatrist, a psychologist, and a speech pathologist. Although the meetings are kept informal and maximum group participation is encouraged, topics are presented regularly by the staff as a means for stimulating discussion. The medical, physical, psychological, and speech aspects of stroke are presented in five to ten minute "lectures." In the context of the group, families share many of their experiences and ask questions. A tally of questions asked over the years in these group meetings comprised the basis for a question-and-answer book written for families of stroke patients (11). The psychotherapeutic benefits of this program include marked reduction in anxiety, opportunity for ventilation, reassurance, alleviation of guilt, and the adoption of a constructive attitude, as well as a more realistic outlook. The staff members who have participated in the group view the process as primarily educative, and have been impressed with the psychotherapeutic byproducts generated by providing the families with factual information.

Boone has described a family group program as part of a larger aphasia rehabilitation program which meets once or twice weekly. Participants watch patients through observation windows in order to gain an understanding of the uniqueness and complexities characteristic of each aphasic patient. He suggests that "there is no more useful device for understanding aphasia and the patient than family group therapy as part of a total rehabilitation program." Yet, he feels that the speech pathologist may be well advised to avoid personal involvement with the problems of the family, and suggests enrollment of a social worker's or clinical psychologist's help in this area. It would appear that while he appreciates the intensity and importance of the family's reaction to the patient's disability, he would prefer to leave this part of the rehabilitation management problem to other disciplines (7).

The late Hildred Schuell went to considerable length to describe the many aspects of family counselling which she considered important. In the context of her program, counselling is administered on an individual basis. She felt that a great deal of time should be taken to listen to the family member so as to increase his awareness, to instruct him on the limitations of the disability, and to be honest with him about the limitations imposed by the disability. She outlined three important facts of counselling:

(1) First, one should strive for acceptance of the fact that no dramatic changes can be expected; there can be a positive consequence to such negative information. It means that resources of time, energy, and money that might have been fruitlessly expended on unattainable treatment goals for aphasia can be released for more fruitful ends (8).

(2) The second important facet concerns the importance of clarifying that the aphasic is neither feeble

minded nor mentally deranged. This is perhaps a universal concern of aphasics' families.

(3) The third facet of counselling is to help the family and the patient make the best possible adjustment to an altered situation, focusing on the importance of living as normally as possible within the limitations imposed by the disability. Schuell stressed that perhaps the most effective goal to be set for an aphasic patient involves the provision of a systematic and regular daily routine. This structures his day, gives him a feeling of confidence and security, as well as something to get up for and look forward to. She squarely places the responsibility for this structured daily living on the patient's family.

It is not easy for an individual who has been busy and active all his life to alter his way of living, and to settle for what he sometimes regards as trivial. Adjustments can be facilitated, however, if the family understands the importance of keeping the patient active and stimulated, and of having a regular routine with which the patient can cope.

In 1967 a report appeared which described an organized, formal program of family counselling with relatives of aphasic patients conducted at the Schwab Rehabilitation Hospital in Chicago (17). This project was initiated because no services existed in the community to which families could be referred. Meetings were held on a once weekly basis for periods of four consecutive weeks and families were invited to attend these sessions immediately upon admission of their relative as a patient. A speech clinician and a psychologist acted as group co-leaders. After several years of experience with this format, it was decided that more would be achieved if the format were open-ended and continuous. The older members themselves could play a therapeutic role within the context of the group's session. Furthermore, the open-ended format allowed participants to return to sessions long after the patient's discharge for further reassurance or discussion of problems or issues as they arise. The authors reported the same psychotherapeutic results and benefits indicated earlier by others (16) for this purpose. That is, the family's need for ventilation, for alleviation of guilt, for sharing a fear of the unknown, and fear of the patient being mentally deranged are coped with, and the relatives' perception of the patient and their own mode of relating to him change positively as a result.

Another experience of this sort with the families of stroke patients was reported by two social workers (18) at Mt. Sinai Hospital in Cleveland. The group had as its purpose to bring together the families of stroke patients and to hopefully change some of their attitudes, fears, and anxieties through an educational group approach. The program was led by a physiatrist, a physical therapist, occupational therapist, speech therapist, and a nurse. The authors were encouraged by the positive results of their experience and urged the adoption of this technique as part of regular rehabilitation services.

The rehabilitation team at the American Rehabilitation Foundation in Minneapolis acted as the teaching staff for a program which met two hours weekly for four consecutive sessions. Audio-visual aids, slides, transparencies, films, and special displays giving participants an opportunity to see clothing, kitchen aids, and other gadgets adapted for one-handed use were part of the program. Sixty-three people registered for the course, and about half were professional workers who attended on the same basis as family members. The format for each session was carefully structured beginning with an hour of didactic presentation by members of the teaching team. A brief quiz and a group discussion followed each session. Questions were solicited in written form both to encourage people to participate and to give the panel an opportunity to select for attention those inquiries of general interest. In addition, booklets and pamphlets were distributed. On the basis of an evaluation of the course by telephone interview, the team intends to schedule additional offerings of the same course (19).

In the speech pathology program of a Visiting Nurse Association which provides speech therapy services in the patient's home, it is reported that "therapy is as often centered as much on the family as on the patient. The speech pathologist's primary goal is often the total adjustment of the patient and his family to the existing communication disorder — this adjustment can come only when the patient can, to his satisfaction, function adequately within his own environment, i.e., a better understanding of the many aspects of stroke makes each family member's role clearer and more realistic." (20)

Malone (21) has pointed out that, in view of the increased importance attached to the role of the family in rehabilitation, it is interesting that the literature is barren of information on how the family is affected by aphasia. He reports on interviews with 25 people representing the families of 20 aphasic patients in an attempt to establish which reactions are common to the entire group. The problems most frequently reported included role change, irritability, guilt feelings, altered social life, financial problems, health problems, oversolicitiousness and rejection, and effects on children. Malone points out that the attitudes of families of aphasic patients suggest the need for the speech pathologist to recognize the necessity of providing a counselling program. "The family unit cannot function as a collective partner of the rehabilitation team until all its members have become aware of the many and varied

problems associated with aphasia and until they have received some help in coping with these problems. The disruption which may begin with a language and personality disorder of the patient, creates severe problems for the family which in turn aggravate the condition of the patient." By personality disorder Malone undoubtedly refers to those behavioral changes associated with central nervous system damage. Therefore, Malone suggests that a counseling program be instituted as soon as possible after onset.

We are all aware that many speech pathologists who work with aphasic patients engage a member of the patient's family to assist the patient with "home practice." There is a number of published materials designed for this purpose. One recently published study reported the application of operant conditioning where the wives of aphasic patients were trained to administer operant conditioning techniques in order to control their husband's verbal behavior (22).

In some settings it is standard practice to prepare a "Home Program" for a patient to follow with his family after discharge from an active speech therapy program or as a supplement during the weaning process. Such programs are prescribed by some as a means of structuring the patient's daily life. Others recommend a Home Program because they feel that it will contribute specifically to the patient's language recovery. There is some general disagreement among those specialized in aphasia rehabilitation about the usefulness and desirability of enrolling the assistance of the family in speech therapy at home. We have exercised some restraint in this matter in our program finding that very often speech therapy administered by a family member serves as a device for the family member to (1) be reassured that the professionals believe that the patient will improve (or the Home Program would not have been prescribed), (2) assuage guilt ("everything is being done"), and (3) serve as a means for the angry family member to act out his hostility by controlling the patient's treatment. We, therefore, only prescribe a "Home Program" on a selective basis.

It is certainly clear from the literature and from what we can observe clinically that the families of aphasics play a critical role in the patient's rehabilitation. This is, we believe, a result of the fact that much of what is called "successful" aphasia rehabilitation has little to do with actual improvement in communication function but is dependent on the patient's overall adjustment to life. An adequate and appropriate "speech therapy" regime, whether based on direct or indirect methods, may indeed be a process of assisting the patient in his struggle to live with a devastating disability.

In this regard, we need to ask ourselves some unpopular and hard to answer questions. What are the specific language changes that occur as a direct result of speech therapy once the condition is stabilized? Which patterns of aphasic impairment benefit from speech therapy? What is the natural course of recovery from aphasia? We will need rigorously designed research using untreated subjects in order to help answer these questions. At this time, there is strong support for the notion that only a very limited number of patients of a particular type derive specific benefit in language proficiency from direct speech therapy.

If future research corroborates the idea that most aphasia rehabilitation is less a matter of improving language skills and more a matter of participating in the patient's overall life adjustment, we must then take a hard look at the appropriate role for the speech pathologist.

In a setting where the speech pathologist is the only professionally trained individual who is aware of the patient's family's needs, he may be forced to do the whole job alone. If this is the case, the unsophisticated, untrained, and self-appointed, "psychotherapist" should beware that he may find himself confronted with a set of dynamics which are beyond his understanding and competence. Family counseling is a complex and tremendous responsibility. I feel strongly that no one without a considerable background of training and experience should venture into this role. In the situation where the speech pathologist is alone, it might be advisable to deal only with the facts related to the specific patient's verbal impairment and his speech rehabilitation — taking great care to avoid becoming involved and enmeshed in dynamics which could be psychologically harmful to the patient and his family.

Ideally, I believe, that family counseling should (1) begin on the first contact with the patient, and (2) take place in the context of a multidisciplinе setting where the speech pathologist, trained and experienced in aphasia, acts as educator to his colleagues including the physician as to the nature of aphasia, its symptoms, expectations and realistic limitations, where a team undertakes the responsibility for assisting the family in working out and coping with their multiple problems. In such a setting the psychiatrist, psychologist, caseworker, or other member of the team, trained and experienced in such matters, can carry the responsibility while receiving specific information relative to the patient's verbal limitations, etc. from the speech pathologist. The speech pathologist participates with his colleagues in the overall goal of educating the family. But at this time I do not see the feasibility or advisability of encouraging the

average speech pathologist, whose training and experience is at best naive in such matters, to assume the responsibility for helping the patient's family in its psychosocial needs. What he can do is insist that his colleagues undertake the provision of such services in the context of a team approach and assist in the process by providing them with the information they need to know about the nature of aphasia and the recovery process.

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Discussion

ALLMOND: The first letter of my last name has plagued me since first grade, but there is nothing I can do at this point. I'd like to, if I could, speak both for myself and Jim Sherman, although I didn't ask him about it. I'll speak for him anyway—I never let things like that get in my way. It seemed to me what I was hearing him say throughout the discussions following the speakers' presentations was this, "Okay, the family is important in the management of the person with this particular disorder, whatever it happens to be. Yes, the family's important. Now, what are you going to teach them? what are you going to tell them? what are you going to do with the family now that you've recognized that they're important?" My question is really a variation of that same theme, and it's a how question. His is, "What are you going to teach them?" and mine is "How are you going to teach them?" I don't feel that we've gotten to that in this conference. The specifics of what and how have not yet been answered. I would like to throw that out to the audience for some discussion back and forth as well as among the panel members.

And I now proceed to answer my own question with an amplification of what he began yesterday. I'm taking something that Dr. Quigley said in his talk: "Lowell, in 1967, has listed four stages of parental education which are important to the guidance of the learning of a deaf child." And then he goes on to list the four and I'll talk about those shortly. What I would like you to do is just take "deaf" out of that sentence and I'll read it again. "Lowell has listed four stages of parental education which are important to the guidance of a child." The child may be a normal child; the child may have a problem. And then the four stages are these: awareness, acceptance, information, and application. It seems to me we've cornered off various disciplines to tackle each stage. At the present time, psychiatry has a corner on the awareness market; if there's a problem with awareness in a family or awareness of parents towards a child, one goes to the psychiatrist. If there's a problem in a family with acceptance, I'm not sure to whom one goes — I'll leave that one for last. Information, we're all pretty good at that; we really like to hand out information, and we all feel we're pretty expert at that. That's one of the most easily learned skills—how to *tell* information to someone. And then finally the application, I think we're all pretty good at that. But the stage that is surprisingly left out is acceptance; maybe that's because, carrying things to a logical extreme, none of us is in and of ourselves, willing to accept a patient with a disability. Our very professions speak against that, otherwise we wouldn't be trying so hard to take the disability or the illness or the abnormality away from the patient, if we were really accepting. So our very lives are kind of a denial, if you will, that there is indeed something wrong with the patient since we do all in our power to do away with it. And for that reason, and for others perhaps, in our training we skirted that issue to the point that now, and I'll say for me particularly, I'm very uncomfortable with the notion of acceptance of a disability, an illness or an abnormality in a child or within its family. In terms of our training for the future this is where we've all got to do a lot of spade work. This, I guess, is my message to the group. Let's think less about how we're going to tell somebody something or how we're going to apply a principle or technique and let's begin to think about patient and family awareness, patient and family acceptance of a child within his family.

BANGS: I'd like to present a few of my basic tenets as well as those I have listened to during this conference. Although I am directing my summary to families of handicapped children, I believe that if we understand basic principles of counseling that such principles can apply to an adult population. Number one, I feel that parents want to become involved with the care and training of their child, and we really should not rob them of the responsibility of planning for their child by ignoring them during the course of action. Second, presumably parents do not want to reinforce unwanted behavior. Hence, a planned course of action is indicated. It seems apparent that, without a planned course of action, parents would continue to experience just confusion and bewilderment. Third, counseling is directed toward two levels, the feeling level and the intellectual level. If we expect parents to intellectualize regarding the course of action we must first cut through all the emotional

problems and dilemmas that exist. Fourth, reality must be represented: that is, reality related to improvement or even educational achievement. Parents should take an occasional look at what has been, but should be encouraged to really look down the road where changes and challenges will have to be met. Fifth, the counselor may work with a group of parents of varying educational and socio-economic levels. However, it is best if there is a basic homogeneity within the group such as hearing impairment, orthopedic problems, retardation, etc. Sixth, counselors must always indicate their interest and give reassurance of their continued interest with the groups of people with whom they're working.

Now I'd like to say something about the first few meetings with parents. 1) Something we have found helpful at the very first meeting is to have each parent write, in large letters, his name and the name of family members on a fold-over card. I think it is very important in group counseling to know how many children are in the family. Mrs. Holm may have eight children, therefore her problems may be very different from the problems of the family who have only one or two children. 2) During this first meeting we must discover what the parents want from us. They may not really want what we have planned for them, so we must listen, and be certain that we find out what is truly bothering them. Then, we write their needs on the blackboard. Taking penciled notes during the meeting is a risk as it may arouse suspicion. The notes may be copied from the blackboard for the second meeting. 3) It is important to direct to the parents as many questions and answers as is feasible. We, as counselors should do very little talking. We must listen to the parents as they express their feeling and their attitudes that often get in the way of their trying to achieve the goals being layed out for them. For example, it may be that a mother reveals that she needs to have her role as a wife improved before she can play the role of a mother. 4) We should be aware that parents will not agree on solutions to problems. What works for one may not work for another. 5) With regard to home training, mother's or the family's job will be to provide a somewhat structured environment for a very unstructured child who is there to have fun. But remember, it is difficult to get parents to accept new rule books when they have memorized the old. Training must be adapted to the strengths of the child, not to his handicaps. A reverse of this may have been the basis of the problem at home. In conclusion, I can easily summarize my concept of parent involvement. It's found in the title of Aline Auerbach's book which is *Parents Learn Through Discussion* (New York: John Wiley & Sons, 1968).

ENGLAND: First of all I'd like to point out that this is Jim Sherman's chair. I'm not trying to fill his chair because I'm sure I cannot. I'm quite sure that most cannot. Now this other chair is my chair. It has been up here all week and I've shaped Dr. Hanley not to make me sit in it the first two days. Dr. Hanley asked me yesterday if I would sort of jot down some general reaction from the perspective not only of a panel member, not only as an audience member, but as a general observer of the scene. So I got up at six o'clock this morning and went down to the beach, which is where I get all my psychotherapy, and jotted down these things. When I got finished I had a group of words which are not used by most behaviorists professionally but they are familiar and useful, I think, to everyone else. As I look down through them they say things like "distressed," "humbled," "overwhelmed," "startled," "pleased," "disappointed," "disturbed," "encouraged," "warmed," "enthusiastic," and "stimulated." Now I'd like to be a little more specific because I've been saying all week that we must be more specific. I would like to tell you the things that have caused each of these responses in my repertoire, here. I was very distressed, I think, and humbled, by the fact that very few of us, as we got right down to it, have really done what the conference participants have been advocating. I do not think that we really have very effectively developed programs, systematic programs, for helping parents work with their child's problems. I think we had a notable exception to that this morning in Mrs. Sarno's presentation. For twenty years she has been systematically teaching spouses to help their spouses with the problems of a CVA. But in general, as we listen in the group sessions and when we asked people, "What are you doing in your center for systematically training the family?", we have continued to be more vague than we should be content with. I think that's true of almost all of us. So I was distressed with that fact, and very humbled by it, because there was not too much data or practice along that line.

I was somewhat startled by what seemed to be a collective resistance on our part to specify behaviors. This is, I think, the most difficult task we have ahead of us. Whenever a question was asked, "Well, what do you mean specifically?", there was a lot of avoidance behavior and then the question was asked again, "Well, what do you mean specifically?", and then some approximations to a little more specific behavior was made and finally we could see that really what we had to do was sit down and become much, much more specific than we have in the past. So this, I guess, startled me.

I was very pleased with our apparent knowledge of the gross sequencing or ordering of behaviors which are involved. Almost every time you asked a person, any one of us, "What should you do clinically?", they could tell

you in general terms. Each one of you would lay out a plan, saying, "I should do this first, I should do this next," etc., in gross terms. So we do have that knowledge in our backgrounds; and its very, very pleasing to me that its there, because now all that needs to be done, it seems at least from my viewpoint, is to plug this information into a better strategy perhaps or a more efficient strategy.

I was very disappointed that we haven't heard more from Ed Garrett during the conference, and I would suggest that some of you tackle him before he gets away today and ask him what he's doing to train parents to teach their children, because even though he may not have a lot of hard data on the parent training, much of his work over the past several years is directly applicable to making parents into teachers, very effective teachers.

I was very impressed by the panel members during the two days previous to today, and their ability to raise the significant issues for the panel discussions. I think that's a very difficult task to do under the circumstances and I was very impressed with that. The thing that disturbed me most was a philosophical point which came up, which I think Jim Sherman handled very gently and it relates to training family members to be teachers of their children. The comment that disturbed me was "I don't believe in operant conditioning." Now that wouldn't disturb me terribly if that was one uniformed man, but what really discouraged me was that there was a lot of reinforcement for that response from the audience. In other words there was some applause where I was, there was much affirmative nodding, there was some smiling which meant you just conditioned that man's comment to occur again. And though we may deny that we are not conditionable (i.e., can't learn), he will more than likely make that response again. Unfortunately for him, he really doesn't have the option of belief or disbelief.

I'm very encouraged by the presence of a very powerful learning strategy and I think everyone has recognized this. Many of you are deeply involved with that strategy. That strategy seems relatively simple in principle. I think it has become apparent how devastatingly difficult it is to apply that strategy, and to plug in the necessary information to that strategy. The strategy which I am referring to is choosing your target, specifying the small steps in behavior that you want to change, setting up a measurement system to keep track of your progress as a teacher, keeping track in some way so that you can continue to modify your programs in a better way and continually evolve better and more efficient programs. That strategy is extremely useful and powerful if we are clever enough to utilize it well.

Jim Sherman started out the whole conference by saying that behaviorists were arrogant. I was more impressed and warmed by his humility, quite frankly, during the sessions and the fact that he was completely open and flexible in his approach. Many times you think of the behaviorist as being very mechanical dehumanized, and very rigid. I saw the kinds of things he was telling all of us as exceedingly flexible, human, and exceedingly humble; and in that sense I was warmed.

I'm enthusiastic, very enthusiastic, that we have come to the recognition that the responsibility for teaching children and for teaching parents to be teachers of children falls on us. We're starting to throw away the "resistant" child, the "ornery kid," the "laxy kid"-kind of labels and beginning to say there is something wrong with the way I am teaching this child or he wouldn't be ornery, he wouldn't be laxy, or resistant, and all these terms that we use to describe our procedures and failures. I saw many of us begin to say, "I'm doing something wrong and I can tell by watching the child."

I was very stimulated, Dr. Bangs, by your comments yesterday, as I told you afterwards, that some very basic changes are going to have to be made in the training institutions as to the kinds of ways we look at separating out these disorders. We really have a lot of barriers here. Barriers between professions and between disorders we set up a whole course in one small piece of behavior rather than the underlying discipline which will change many of the behaviors and I was very impressed by your comments, and you're in a situation where you can do much about it.

Then finally last night I guess my reactions were surprise and that's where the "overwhelmed" came in. But there were three very strong statements that were made by Dr. Travis which perhaps unintentionally provided a beautiful rationale for behaviorism and the first one really caught me off guard but is wonderful for thought for those who don't "believe" in operant conditions, Dr. Travis said, "He who controls behavior and does not admit it is in trouble and is sick." I would submit that there is not a person in this room who is not controlling the behavior of yourself and others. Many of you are controlling mine right at this moment by your nods and smiles and shakes of the head and looking down at the floor and frowning and throwing vegetables, etc. So I think it's critical, not only now in controlling panel members, but it's very critical in the work we do with the kids in front of us and the parents in front of us that we analyze and understand in what ways we are controlling them. It is important that we achieve the mutual objectives of our control rather than some other random objectives that we are not aware of that's when we are in trouble. I think that Dr. Travis made that point exceedingly well in one very straight forward statement. This psychoanalyst also said that "all

behavior is the result of its consequences." He also said that "personality, how it is treated, determines its nature." All of those are very strong behavioristic statements. I was very overwhelmed, and surprised by these comments from that source and very pleased. I think I'll stop, thank you.

FLOWER: This conference, like every conference that has ever been conducted has, in a measure, revealed the "state of the art". As I have listened to the papers and the various group discussions during these past three days, it has seemed to me that we can identify three different areas of discussion that have reflected the state of our art in utilizing families as supportive personnel: First, we have talked at some length, and perhaps at inordinate length, about reporting information to families so that they all understand better the pathologies and the problems with which we are dealing. At least when we clinicians are working with patients who share our social, cultural, and linguistic systems, this is probably the area in which we have been most successful.

A second area concerns helping families provide an environment that is more conducive to better communication. Here we fare less well. The clinician must function as a family therapist, dealing with communication in a broader framework than specific disordered speech and language behaviors. Throughout this conference I have heard protestations of our inability as speech clinicians to play this broader role. Yet, if we are indeed concerned for communication, surely the communication between our patients and their families is of supreme importance. I wonder if we can claim respectability as the profession predominantly concerned with communication, and at the same time deny our ability to deal with this particular aspect of communication. Learning to work with families is surely at least as important as learning the origin and insertion of the rectus abdominus and being able to describe at great length the major surgical approaches to cleft palate. I'm afraid, however, that this perspective has not as yet reached many of our institutions of higher learning.

The third area, and the one in which we fail most miserably, is teaching family members to work directly on the modification of specific communication behaviors. Perhaps our inability to assist families in the teaching of communication behaviors says something about some of our own professional problems, that is, we have been very laggardly in developing specific approaches to the modification of communication behaviors that are objectively describable and ultimately measurable. If we don't really know what we are doing, how can we expect to train supportive personnel — be they family members or someone else — to carry out some specifically structured part of the behavior modification process? In all honesty, therefore, in concluding that this area of working with families is the area of our least effectiveness, we are admitting some very disquieting things about the overall state of our art.

SARNO: I agree with Dr. England's comment that often a patient's behavior is simply a reflection of what our own behaviors are, and one asks one's self, "What am I doing that I shouldn't be doing?", or, "What am I not doing that might help to reinforce particular behaviors in a child in particular?" But I worry very, very much about this kind of philosophy when it comes to aphasic adults where indeed the behaviors that one can do much about are quite limited. I often get phone calls from young people who are out working, and who've been working with aphasics for a period of time, and have gotten no results; and they become increasingly guilty, and increasingly upset, and they're sure that they're the ones that are at fault, that they're simply inexperienced and haven't seen enough aphasics, and so on. And sometimes it takes an enormous amount of reassurance to reassure them that the patient is really doing all he can and you're doing all you can and this is as far as he can go for the moment. So when we're talking about organic conditions and not functional conditions, I wonder if we don't have to modify that kind of an approach. In the same vein a lot of people have said, "If you can just stimulate the patient to be more interested in talking, indeed his language will change." I have rarely seen what I would consider a real hone-it-to-goodness poorly motivated aphasic. I think most of our aphasics operate at their optimum considering their brain-damaged condition.

I appreciate being singled out as someone who has done something with the families of aphasics, but at the same time I'd like to comment on what we have not done. We are very fortunate to be operating an aphasia program which happens to be within a rehabilitation medicine center. This allows us the privilege of a large counseling staff representing many disciplines. But we have not yet designed a program which is more realistically designed to meet the aphasic's need for life adjustment. Perhaps our focus has been in the wrong place. We're still focused on something called speech therapy, and we make an underlying assumption: that every one of our patients can improve, which is not necessarily ture. I believe that these patients, many of them stroke victims, improve for the rest of their lives as a matter of fact, but this may not necessarily be because of speech therapy. What we need are structured programs, re-

creational, community, and hospital-based programs designed to help these patients lead a more normal life each day and which are not necessarily speech therapy focused: not goal-oriented toward improving speech, but goal-oriented toward improving *living*.

BANGS: May I ask one question? After what you have said about organizing a recreational-type program, do you believe in having clubs or organizations for adult aphasics?

SARNO: Yes, very much so. I wish there were many more stroke clubs. The only one I know of is the one in Galveston. These clubs are in some ways like Lost Chord Clubs. Aphasic patients often can't fit into a Golden Age Club milieu. They really need a club of their own where they can go on a regular basis. I wish we had the machinery for getting such clubs organized. They'll have to be generated by the patients and their families themselves and we might do some public relations in this regard.

EARNEST:* In all of this discussion, no one has said anything about financial problems; and when one visits Great Britain, for instance, a great deal is available because it is a country of socialized medicine; and it seems to me, until we have some financial basis in all of our various institutions, we cannot get a wide-spread coverage of the problem. It's done mostly on a "boot-strap" level or an experimental level, and I wonder when it's going to be available everywhere in small villages as well as in big cities and will be paid for in our country.

FLOWER: Could I respond to that Sue? I agree, again as somebody who has to worry about how you pay a staff at the end of the month, that what you say is very true. Too often members of our profession behave as though we are only serving the patient when we are "testing or teaching him", therefore fees should be charged for only these "testing and teaching" services. This philosophy is now being locked into third-party payment programs. Nevertheless the first changes must occur in the way we look at what we're doing. We must recognize that the time we spend with families may, indeed, be an even more important part of the program than our "teaching" of the patient himself.

*Dr. Sue Earnest, San Diego State College.

EARNEST: Do you think this is going to come?

FLOWER: I think we have to take the first step because we have to be the prime movers.

SNIDECOR: I wanted to comment on something Dr. Allmond said, and add a few words. There is a very good reason why we're sometimes so far ahead on information and so behind in other ways. Now, for example, I reported a study which was finished last Thursday. It's a little difficult to read some of the applications, and I'm afraid that I can't read some of them; but I'd like to read some right now because as some of my students know very good and well it is too easy to go way beyond the data. Many, many times, when I think it desirable to do so, I identify that fact. I think of some things here that apply to what I said the other day, and I'm just saying that because we're here to take stuff home and work with. One is that, no matter how well an individual is counseled, the laryngectomy operation is a desexing kind of thing, and I am not speaking of Sigmund Freud by any manner or means. I'm just talking about the nitty-gritty of the fact that, even in this age of equality, it is usually the man who asks the question, usually has some sex life, and the chances are pretty good he has much more than fifty-fifty at the age of the operation. The second point in regard to the female laryngectomes, and there are not so many of them, you will never probably wear a low neck dress again. Your neck very well may be disfigured. You will never cry again. This takes some education and sometimes it takes a pattern book so that you can wear something that's beautiful. I personally think that high neck dresses can be beautiful indeed.

FLOWER: Ted, May I direct a question to Mrs. Sarno that occurred to me during her paper? Most of the family counseling situations that you were describing seemed to exclude the patient. Do you feel that the nature of the communication problem of the aphasic precludes conjoint work with family and patient together?

SARNO: I've never tried on any large scale to work with the family and aphasic patient in the same sessions so I have no real experience upon which to base an opinion. I wouldn't mind trying just to see what would happen. But I suspect that the complications of the dynamics between the spouse and the patient would be extremely difficult to handle in a group setting. I nevertheless recognize that these are the dynamics which are most crucial.

FLOWER: As a conjoint therapist, would you be willing to comment, By even though you haven't worked with adults with aphasia?

ALLMOND: Sure, as I say, I never let myself be bothered by the facts; but what you're saying, Martha, at the end, bringing into play the dynamics between the patient and the family, would be specifically what I was after since those are the factors operating twenty-four hours a day outside of my office and perhaps that's what the patient and his family need some help with. I'm just finding as time goes on that there's less and less need to segregate patient from family with anything I do. The game of secrecy that we as clinicians impose upon a patient versus family is really a game that we play. The family goes along with us, but in any number of conditions, the child with a fatal illness, for instance invariably he knows whether he's been told or not. I don't care how old he is, his concepts of how sick he is may be sophisticated or not sophisticated, but he knows full well when he's dangerously ill. The business about don't tell him or don't deal with it is really an illusion and something that we work at. Then the family begins to fall into that, and play the same game. I just don't see much merit in that anymore, and the more I do the less I'm finding there is an appropriate opportunity to separate the patient from his family. That's not to say that it never happens but it's just not working out that way for me. It's much better to have everybody together.

SARNO: I didn't mean to give the impression that there ought to be a secret relationship between professional and family member or professional and patient. As a matter of fact, we urge families to carry back whatever, no matter how much they want to protect the patient from knowing things like the fact that his shop was just closed because they couldn't keep it running any longer or that a brother died or any other fact which might be difficult for the patient in his already devastated condition to comfort. This is life and these are the things one has to live with. The only thing that I meant was that if you're not very skilled in handling both spouse and patient, the dynamics are even more difficult and I've never tried it except in my office when I first see a patient but never as a group therapy process and so I really haven't the experience.

HANLEY: Hugo Gregory, will you talk on the same issue?

GREGORY: Well, I think I commented on this yesterday and my experiences have been very much like Martha's that I have not initiated therapy with the entire family. I have been reading about this work and I'm very interested in it and either by working with a person who has had experience with it and moving into this area or by, as Martha is commenting, beginning to move in on sort of an experimental basis, I think that this should be examined very carefully and this was the point that I ended on yesterday but I have had very good results at a point in therapy where I have felt that it is indicated to bring in the family to help them now understand clearly and to reinforce and support what we we're doing, what we'd already been talking about with the mother and father, what we had already been talking about with the youngster and what we'd already been talking about with the husband now talk about with the wife. At the point where I can predict that it's going to be effective to do this.

Question from the floor:

The benefits and the virtues of group sessions for the families and the patients, I think, are pretty well realized and the question I'm going to ask shouldn't be interpreted as a negative implication. I think recently I read a little script about someone, perhaps someone here, who reported on some family groups with stroke patients. Some of the family members got so comfortable with accepting the fact that their own dependency needs were valid that they became less motivated to take care of the family members. I wonder if Mrs. Sarno mentioned anything about it or if anyone has any experience in that regard . . . . . It's a fascinating thing to me that other people felt the same way. He no longer felt guilty that he didn't want to take care of so and so; some of them actually withdrew from the chair of the family member.

SARNO: That wouldn't surprise me. I don't know the particular study you refer to but in certain family constellations one might expect this to happen. . . . .

ALLMOND: I'd like to pose the question back to you. Would you then feel it preferable to have this guilt-laden, angry individual still helping his husband, his wife or what have you? You know, which is preferable?

Same questioner:

That's why I prefaced the question with the shaky remark. Now obviously this becomes whatever you would like to call it, philosophical judgment, if you will and I don't mean to sit in that judgment. Obviously, you'd like the constellation to be as comfortable and be as lived with, whatever it is they happen to adapt to. I don't mean to imply they should be taking care of this person by virtue of the guilt. . .I didn't mean to imply that.

FLOWER: Ted, could I return to something that Hugo stated? All of us who work with patients work with families. There seems to be an implication that working with these people separately is something different from working with them together, that is, it takes a different set of skills to work with them together. What do you think, By?

ALLMOND: I see what you're driving at, and yes and no. It does take some different skills, but my feeling is the skills are learnable by everybody in this room and can be as integral a part of their training and their experience as any aspect of language training. But, well, I don't know, I would prefer that people not be scared off by the notion that seeing a family all together is such a horribly different thing that I must never attempt it until I've at least had psychoanalysis myself. That just isn't the case, you know. If that were the case I'd still be giving DPT's to kids and seeing children for well-baby checkups. But I happen to feel that there's a spot for all of us in the handling of behavioral matters, for you as well as for me. Yes there's a discipline and a skill and it's learnable.

ENGLAND: Behaviorists rush in, too, where angels fear to tread. I probably don't do a very good job of raising my own children, but I'm always willing to tell other parents how to train theirs. At the Monterey Institute, if I may make a personal reference, we have attempted to do, I think, what the conference is suggesting. We bring in groups of parents: parents who have children in our center with specific kinds of problems, and we sit down and train them in the same kinds of principles of learning theory that you've been hearing Dr. Sherman and others talk about this week. We teach them to count, we teach them to measure, we teach them to keep track, we teach them to chart. Now these are parents, some of whom are illiterate, some of whom speak other languages, some who come from educated homes, etc. There are housewives who come in to a group session and within 5-six 1 hour sessions they are routinely changing their own child's behavior in demonstrable ways. Now that encourages me to agree with what Dr. Allmond is saying, if a person can read or even if they can't, they can be trained. In other words, all of us can learn these skills that I'm talking about if we know what these skills are and we know how to program them—we know how to sequence them. Then what makes it magic for a man who enrolls in one department to learn these skills, and illogical for a man who enrolls in another department to not be able to learn these skills? Again in Monterey, we bring in high school youngsters, housewives, people from retirement homes, and people from junior high, who also are trained to train children. They are trained in the basic principles of learning theory and they can sit down and administer a program, let's say, to teach a child to read or to teach a child new articulation or language or other kinds of skills, behavior control, etc. These are people off the street basically. We say to a high school, "Do you have any kids who want some volunteer time?" So we know now that the person "off the street" can be trained. (I was once a person off the street, too, but then some people say I can't be trained.) We do know that people can learn new skills and there's nothing magic about the degree attached to it. What is "magic" are the underlying laws which govern that skill. I don't know if I've made myself clear on that point. A good volunteer without formal training can easily outdistance a Ph.D. without a learning theory discipline in teaching children new skills. The secret is in the programming and appropriate training.

GERBER: Mrs. Sarno has suggested something that might be called a kind of a "lost words" club. I suppose you get a lot of aphasics together. Dr. Snidecor has suggested that the Lost Chord Club is sort of a society of mutual suffering and perhaps not a good thing. I'd like to hear him react to her suggestion of "the lost word club."

SNIDECOR: Well, I think I'd first better clarify my thinking, because maybe I said what I really didn't mean to say, and that is that the Lost Chord Club is a very important transition for most people between the Speech and Hearing Center and getting back into a normal social life, in my opinion. It's a place where you talk, and not a place where you learn to talk because the laryngect is often a very bad teacher because he wants to teach people how he learned to talk which may not be at all right for the other guy. So I look at it as a transitional kind of place where the wife and the guy, or the guy and the wife (depending on who had his throat cut), can adjust to other people, and then stop and make the transition to the bridge club, to the country club, to wherever it was they were having fun before and not become a professional laryngectomee. I am in no sense criticizing the function of the Lost Chord or the New Voice Club. It's got to have a revolving membership. The period of time you belong to it depends upon your need. It may be two weeks, two months, six months; it's a variable and so I want to make this point very clear because somebody might go home and say, "Snidecor says that Lost Chord Clubs are no good." They are very good indeed, they are very good indeed; but they serve a need that lasts for awhile. The case of the laryngectomee who learns how to talk, I assure you (and I'm sure that

you would agree with this) that between this person and the individual who has had a stroke there are not too many similarities, not too many. They're different birds.

HUBER:* Well, I can see a Lost Chord Club for dysphasics, but I would certainly like to see someone who understands the language problems of all of them guiding them (as certainly Dr. Harrington does in the Lost Chord Club), to have someone who really knows how to draw out individual members at a particular time and make a unified group of them. Then I think it would certainly function very well. But just for them alone to get together, I think it would be very much the same sort of thing that Dr. Snidecor envisioned as the Lost Chord Club could eventually just become a group of the same members meeting constantly.

CATE:** Might I suggest something here and say a word. All of you've been aware that rehabilitation workers have been here the last three days I'm sure. And we are trying to become more involved in the field of speech and training and this kind of thing, closer attachment, and yet an attempt in many, many speech and hearing meetings across the state is being involved. It's a pretty tight discipline. A little bit of nonacceptance, you might say. I'd like to put a plug in, if I may, for rehab. And a little advertising if you please. May I have three minutes? A lot of our counselors are highly skilled people, not only in family counseling, but in finances, in vocational aspects, etc. Quite often we have people who come in, who have problems, who say to us, "I'm sick of that, I never want to see the speech therapist again. I don't want to go over there anymore," and he's probably telling the speech therapist the same thing, or other persons. But what happens quite often is that we try to communicate with the therapist or the doctor or someone, and for some reason I get this feeling and I'm sure a number of our other counselors do: We are considered a step lower than the discipline, and I'd like to say that the rehab people and the counselors have a lot to offer you people, a great deal to give you, and help you with a lot of your patients in the transitional period. Quite often you have a person who has a laryngectomy and cannot move back into the environment, maybe the guy has been working at a ready-mix plant where he's breathing cement and sand and dirt; and it's just impossible for him to go back into this trade and really half of his preparation is ____"What am I going to do for a living?" Quite often the doctor and the counselor will spend a lot of time doping this out where a call to the counselor and bringing the counselor in on the case—a local rehab counselor—you can solve a lot of your problems and a lot of the client's problems very readily. This is a little off the family counseling directly but we do that also. Thanks for the plug.

HANLEY: Those words needed saying, Gene Cate. I'm glad they got said.

*Dr. Mary Huber, California State College, Los Angeles
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